STATEMENT

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External member of **A SCIENTIFIC JURY** , appointed according to Order No. R-109-229/26.07.2024 of the Rector of the Medical University-Varna, in a competition for the academic position of "Associate professor" at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, majoring in "Pharmaceutical technology and biopharmacy", professional field 7.3. "Pharmacy", in the field of higher education 7. "Health and sport", published in State gazette(SG) no. 45/28.05.2024 for the needs of the Faculty of Pharmacy, Department of Pharmaceutical Technologies

By order No. R-109-229/26.07.2024 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna, I have been elected as a member of the Scientific Jury, and according to protocol No. 1 of the first meeting of the Scientific Jury, I have been appointed to prepare an statement on the procedure for occupying the academic position of "Associate professor" in the specialty "Pharmaceutical technology and biopharmacy'. Only one candidate took part in the competition - chief assistant professor mag. pharm. Viliana Eduardova Gugleva, PhD. The competition procedure has been followed, as the documents presented in the competition have been prepared in accordance with the requirements of the Act on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its Implementation and the Regulations on the Academic Staff development at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, regulating the terms and conditions for holding academic positions.

BRIEF BIOGRAPHICAL DATA AND CAREER DEVELOPMENT

Chief assistant professor, mag. pharm. Viliana Eduardova Gugleva, PhD graduated from the "Ioan Exarch" High School with teaching of foreign languages, Varna; German language profile in 2006

In 2011, she obtained a master's degree in the specialty of the regulated professions "Pharmacy", with the professional qualification "Master-pharmacist" at the Faculty of Pharmacy of the Medical University-Sofia.

In 2021 obtained a PhD in the specialty "Pharmaceutical technology and biopharmacy", at the Medical University of Sofia, Faculty of Pharmacy; as a self-taught doctoral student, with the topic of the dissertation: "Design and characterization of niosomes loaded with doxycycline hyclate".

Has an additional qualification "Assessor of the safety of cosmetic products"- certificate №31092/18.07.2022 from Sofia University "St. Kliment Ohridski".

In 2016, she acquired the specialty "Pharmaceutical technology and biopharmacy" according to regulation No. 1/22.01.2015, at the Medical University "Prof. Dr. Paraskev Stoyanov" Varna.

The academic career of the mag. pharm. Viliana Gugleva started in 2012, after winning a competition for assistant professor in "Pharmaceutical technology and biopharmacy" in the

Department of "Pharmaceutical Sciences" (until 2014)/Department of "Pharmaceutical Technologies (from 2014 onwards), Faculty of Pharmacy, MU-Varna.
From 2021, after winning a competition, Dr. Viliana Gugleva holds the academic position of "Chief assistant professor" in the same department. The general academic experience of the Assistant Professor Viliana Gugleva, PhD in the professional field "Pharmacy" is 12 years.

TEACHING AND LEARNING ACTIVITY

Chief Assistant Prof. Dr. Viliana Gugleva leads classes in the disciplines: Pharmaceutical technology I and II part ", Biopharmacy and pharmacokinetics", Eligible course "Technology of medical and cosmetic preparations", in the specialty "Pharmacy" and in the Master's program "Cosmetology": "Technology of the production of cosmetic products", "Quality and properties of the starting raw materials in cosmetics", "Innovative carriers in cosmetics", "Good laboratory and production practice and quality assurance of cosmetic products" By decision of the departmental council, a total of 99 hours of lectures have been assigned, in the period 2021/2024. The total study load for the last 5 academic years is an average of 423 study hours/year.

SCIENTIFIC ACTIVITY

In the recruitment competition for academic position "Associated Professor", Chief assistant professor Viliana Gugleva participated with a total of 16 scientific works, not including those presented for the acquisition of PhD, 1 habilitation thesis-monograph and 1 full-text publication in a journal with an impact factor, beyond the minimum scientometric requirements for holding the academic position "Associated professor".

- ✓ Habilitation thesis - monograph entitled "Modern trends and perspectives in the design of vesicular systems. Focus on niosomes" with a volume of 129 pages (indicator B3- 100 points).
- ✓ 12 scientific publications, published in scientific publications, referenced and indexed in world-knowns databases with scientific information (WoS , Scopus; (indicator D.7- 179.56 points)
- ✓ 4 publications and reports published in non-refereed journals with scientific review or published in edited collective volumes (indicator D.8- 35 points)
- ✓ 1 published chapter in a collective monograph (indicator D.9- 15 points)

Chief assistant. Gugleva is a first author in 9 of them, second author in 7 and third and consecutive author in 1 in the published full-text scientific publications in scientific editions - refereed and non-refereed journals, reports and a chapter in a collective monograph.

The total number of points for indicators G5-9 is 229.56 points, with a mandatory minimum of 200 points, and 179.56 points from indicator 7 with a mandatory minimum of 80 points.

- ✓ The citations of the publications of chief assistant professor Gugleva, meet the minimum requirements for occupying the academic position "Associated professor" are 6, all

according to the indicator D10. The total number of points for indicators D10-D12 is 90 points.

- ✓ ***A check of Elsevier's Scopus database, as of October 2024, found 269 citations, excluding the auto-citations of the publications of chief assistant professor Gugleva, in a parallel.***
- ✓ She has acquired a medical specialty " Pharmaceutical technology and biopharmacy" according to the regulation No. 1/22.01.2015, at the Medical University "Prof. Dr. Paraskev Stoyanov" Varna.
- ✓ Chief assistant professor Gugleva is a participant in one national and one intra-university project:
  - Project No. KP-06-H43/3 of 30.11.2020 Topic: "Design and characterization of conventional and modified niosomes and of hybrid, stimuli-sensitive in situ gel-forming dosage forms based on them for efficient drug delivery", with funding organization: Ministry of Education and Science, Scientific Research Fund.
  - Project No. 23011 "Classical 2D and modern 3D ALI cell models for the study of antimicrobial and cytotoxic properties of new therapeutic agents and nano-structured drug carriers" with funding organization: Varna Medical University, Science Fund

Apart from the minimum scientometric requirements for occupying the academic position "Associate professor", chief assistant professor Viliana Gugleva presents another full-text publication in a scientific journal with an impact factor that brings her 6.66 points.

The overall assessment of the candidate's compliance with the mandatory conditions and quantitative criteria and scientometric indicators according to the RSASR and the Regulations for the development of the academic staff at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna and the criteria laid down in it for occupying the academic position of "Associate Professor".

Chief assistant professor Dr. Viliana Gugleva presents evidence of fulfillment of the mandatory conditions and quantitative criteria and scientometric indicators according to the Act on the Development of the Academic Staff of the Republic of Bulgaria, Regulations on the Academic Staff development at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna and the criteria laid down in it for occupying the academic position of "Associate professor" in the field of higher education 7. "Health and Sports", professional field 7.3 "Pharmacy". **The total number of points by indicator groups of the candidate is 469.56 points, out of the required 400 points, according to the regulations on the Academic Staff development at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.**

The documents submitted by chief assistant professor Viliana Gugleva, confirm full compliance and exceeding of the minimum national requirements and those of regulations on the Academic Staff development at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna for occupying the academic position "Associate professor" in the field of higher education 7. "Health and Sports", professional field 7.3 "Pharmacy"

EVALUATION OF SCIENTIFIC CONTRIBUTIONS

The scientific contributions in the publications of the assistant professor dr. Viliana Gugleva, submitted for participation in the current competition are in scientific fields corresponding to the topic of the announced competition in professional field 7.3 "Pharmacy"

The monograph on "Modern trends and perspectives in the design of vesicular systems. Focus on Niosomes' is structured in 6 chapters. The topic is particularly actual, and the monograph informative, skillfully systematizing a large volume of information, being written in very good professional language. The highlight and special contribution of the monograph are the author's own research, published in authoritative international journals in the field of pharmaceutical science and practice, having a very high impact factor.

The author's more important own contributions are reflected in the chapters of the monograph as follows:

- ✓ Chapter 1 Provided systematized information about medicinal products based on liposomes used in therapeutic practice
- ✓ Chapter 2 Loading Niosomes with Gentamicin Sulfate and Curcumin for Intravesical Administration - Niosomes as a Dual Drug Delivery System
- ✓ Chapter 3 Sterically Stabilized Cannabidiol Niosomes by Vesicle Modification Using Newly Synthesized Amphiphilic Linear or Star (3- and 4-Arm) Block Copolymers Based on Polyglycidol (PG) and Poly(ε-caprolactone) (PCL)-Modified Niosomes to extend the release.
- ✓ Chapter 4 Stimulus-sensitive niosomes. pH-sensitive niosomes based on hexadecyl-poly(acrylic acid) copolymers (HD-PAAn) loaded with calcein and curcumin
- ✓ Chapter 5 Hybrid drug delivery systems. Preparation of in situ gel forming system - niosomal thermosensitive in situ gel for intravesical administration
- ✓ Chapter 6 The presented systematized data on niosomes-based cosmetic products as well as patents on niosomes as drug delivery systems.

The original and practical contributions of the author's research reflected in the published articles can be summarized, briefly, as follows:

- ✓ For the first time, pH-sensitive niosomes based on hexadecyl-poly(acrylic acid) (HD-PAAn) copolymers loaded with two model substances - the water-soluble fluorescent dye calcein and the hydrophobic agent with antineoplastic action - curcumin, were developed.
- ✓ The improved cytotoxic and apoptogenic activity compared to free curcumin provides an opportunity for the developed stimuli-sensitive vesicles to be translated into clinical practice in the therapy of bladder carcinoma and cutaneous T-cell lymphoma.
- ✓ For the first time, niosomes loaded with cannabidiol have been developed as a drug delivery platform for systemic administration of the active substance.
- ✓ Sterically stabilized cannabidiol niosomes were developed for the first time by modifying the vesicles using newly synthesized amphiphilic linear or star (3- and 4-armed) copolymers based on polyglycidol (PG) and poly(ε-caprolactone) (PCL) blocks.

- ✓ The prolonged circulation time and the established higher apoptogenic and inflammatory biomarker-modulating effects compared to the pure substance determine the potential applicability of the sterically stabilized vesicles in the therapy of oncological diseases.
- ✓ Curcumin-loaded vesicular systems—ethosomes and transfersomes—have been developed as a drug-delivery platform for dermal application.
- ✓ Ethosomes loaded with curcumin are characterized by appropriate physicochemical properties and more pronounced antiproliferative activity compared to the free substance, which determines the possibility of being used as an alternative approach in the therapy of cutaneous T-cell lymphoma.
- ✓ Hybrid systems based on bi-gels and nanostructured lipid carriers were developed and their rheological characteristics were evaluated using different mathematical models.
- ✓ Lyophilized and characterized are algae from the waters of the Black Sea - *Chaetomorpha linum, Ulva intestinalis* , *Ericaria crinita* and from bioreactors - *Chlorella* spp. and *Arthrospira platensis/cyanobacterium/* in relation to the protein content of the samples.
- ✓ *Sambucus nigra* L. was determined. from four different regions of Bulgaria /Rhodope, Plovdiv, Strandzha and Dobrich region/.
- ✓ The challenges faced by the pharmacies in the territory of the city of Varna, preparing medicinal forms according to the main and pharmacopoeial prescription are differentiated

CONCLUSION

Based on the materials provided to me on the competition and my personal impressions of the chief assistant professor Viliana Gugleva, PhD, I believe that she fully meets the requirements of the of the Act on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its Implementation and the Regulations on the Academic Staff development at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna and the criteria laid down in it for occupying the academic position "Associate professor".

Given the above, I confidently give my ***POSITIVE ASSESSMENT*** and recommend to the members of the scientific jury to vote positively for the occupation of the academic position "Associate professor" in area 7. "Health and Sports", professional field 7.3. Pharmacy by chief assistant professor Viliana Eduardova Gugleva, PhD.

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

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