

## REVIEW

**From:** Prof. Valentina Boyanova Petkova-Dimitrova DSc, Vice Rector in charge for Science and Accreditation of MU-Sofia, member of the scientific jury, included on the basis of art. 4 and art. 25 of the Law for the development of the academic staff in the Republic of Bulgaria, art. 57, paragraphs 1 and 2 of the Regulations for application of the Law for the development of the academic staff in the Republic of Bulgaria, art. 108, paragraphs 1 and 3 of the Regulations for the conditions and the order for acquiring scientific degrees and holding academic positions in Sofia University “ St. Kliment Ohridski ” and decision of the FC of FChPh, Protocol 18 from 18.03.2020, with Order № 38-156 from 02.04.2020, of the Rector of Sofia University “ St. Kliment Ohridski ”.

**Subject:** Contest for the academic position "Associate Professor" in Professional Field 7.3 "Pharmacy", Scientific specialty "Social Medicine and Organization of Health and Pharmacy" for the needs of the Faculty of Chemistry and Pharmacy, announced in State Gazette no. 20 / 13.03.2020

For participation in the contest, documents have been submitted by one candidate – Senior Assistant Professor. Kalina Gocheva Andreevska, Ph.D. from the Educational and Scientific Laboratory "Social Pharmacy", at the Department of Physical Chemistry of the Faculty of Chemistry and Pharmacy, Sofia University "St. Kliment Ohridski".

In accordance with the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at Sofia University "St. Kliment Ohridski ", the Scientific Jury unanimously accepted that the provided by Senior Assistant Professor Kalina Gocheva Andreevska, Ph.D., scientific production for participation in the contest meets the minimum national requirements and the additional requirements of Sofia University "St. Kliment Ohridski ” and admitted it to scientific evaluation.

### I. Career profile analysis

Senior Assistant Professor Kalina Gocheva Andreevska, PhD acquired the educational qualification degree "Master of Pharmacy" in 2001 at the Faculty of Pharmacy, MU-Sofia. 2007 acquired a specialty in "Organization and Economics of Distribution and Pharmacy Practice" at the Faculty of Pharmacy of the Medical University - Sofia. She currently specializes in

hospital pharmacy at the Faculty of Pharmacy at the Medical University - Plovdiv. In 2010 she successfully defended her dissertation on "Medical, social and economic studies of drug use in patients with chronic obstructive pulmonary disease (COPD)" and acquired the degree "Doctor" in the scientific specialty "Social Medicine and Organization of Health and Pharmacy".

Her professional career began in 1994 as an assistant pharmacist at the Faculty of Medicine at MU-Sofia, then a research associate from 1999 to 2001. At the same time she was a medical representative in the pharmaceutical company GSK. From 2001 to 2006 she was a medical representative in the pharmaceutical company Boehringer Ingelheim, and from 2006 she held the position of "Product Manager" for rheumatology, neurology, pulmonology and immune diseases.

Since 2011 she has successively held the academic positions of "Assistant Professor" and "Senior Assistant Professor" in the Department of Pharmaceutical Sciences, Faculty of Pharmacy at the Medical University - Plovdiv. Since 2018, after a contest, she has held the academic position of "Senior Assistant Professor" in the Educational and Scientific Laboratory "Social Pharmacy" at the Department of Physical Chemistry at the Faculty of Chemistry and Pharmacy, Sofia University "St. Kliment Ohridski", where she still works. .

Doctor Andreevska has participated in various activities related to her professional interests - short courses in the field of pharmaceutical marketing and communications.

She is a member of the Balkan Medical Union (2011), and since 2016 she has been a member of the Management Board of the Balkan Medical Union. Since 2014 she is a member of the control commission of the Bulgarian Association for Drug Information.

Senior Assistant Professor Andreevska is fluent in written and spoken English and at a good level - Russian. She has excellent computer skills.

The professional development of the candidate so far gives an indication of successful and closely specialized university and professional activity.

According to the submitted documents, Senior Assistant Professor Andreevska is a lecturer with an annual workload for the last two years, exceeding the requirements for the academic position of "Senior Assistant Professor". The total study load on an annual basis exceeds 400 hours, and the classroom - 300 hours.

Senior Assistant Professor Kalina Gocheva Andreevska, PhD participated in the development of the curriculum for teaching English to students of pharmacy in the disciplines "History of Pharmacy" and "Pharmaceutical Care".

Together with the other members of UESL „Social Pharmacy” she participates in the management and current control of the undergraduate internships of pharmacy students.

My long-term personal impressions and the presented data for the teaching activity give me grounds to claim that Senior Assistant Professor Andreevska is a teacher with high expert competence.

## II. General description of the submitted materials in the competition

Senior Assistant Professor Kalina Andreevska is presented in the competition with 3 types of lists, prepared by sections, in accordance with the latest amendments to the Academic Staff Development Act and the Regulations for the implementation of the Academic Staff Development Act in the Republic of Bulgaria:

### 1. List of the overall scientific production

Habilitation thesis / monograph - 2 copies. 1 independent monograph and 1 co-authored.

Published chapter of a collective monograph - 2 issues.

Publications and reports published in scientific journals, referenced and indexed in world-famous databases with scientific information - 23 issues. 11 of the scientific publications are in journals with impact factor.

Publications and reports published in non-refereed journals with scientific review or published in edited collective volumes - 100 issues, of which 1 scientific article is in print.

Textbooks and teaching aids - 10 pieces.

### 2. List of scientific production after defense of the PhD dissertation and not related to the dissertation

Habilitation thesis / monograph - 2 copies. 1 independent monograph and 1 co-authored.

Published chapter of a collective monograph - 2 issues.

Publications and reports published in scientific journals, referenced and indexed in world-famous databases with scientific information - 21 issues. 11 of the scientific publications are in journals with impact factor.

Publications and reports published in non-peer-reviewed journals with scientific review or published in edited collective volumes - 94 issues, 1 of them in print.

Textbooks and teaching aids - 10 pieces.

References for the citations from the Central Medical Library of MU-Sofia are presented. 29 real citations have been established, of which 10 citations in scientific journals, referenced and indexed in world-famous databases with scientific information, in monographs and collective volumes and 19 citations in non-refereed journals with scientific review.

The publication activity of Senior Assistant Professor Kalina Gocheva Andreevska, PhD is evenly distributed over the years. The quality and quantity of the scientific production after the defense of the dissertation exceeds the requirements for holding the academic position of "associate professor".

## II. Evaluation of scientific papers

Senior Assistant Professor Andreevska has presented a correct and objective report on the scientific contributions in all major scientific pharmaceutical areas of scientific research, which I fully accept. The contributions from her research are in the following main research areas: pharmaceutical care, social pharmacy and pharmaceutical legislation, pharmaceutical marketing and history of pharmacy.

The main scientific contributions are in the field of research and creation of practical steps for the introduction of the concept "Pharmaceutical care" in the Bulgarian pharmacy practice, as a number of works are aimed at summarizing the literature, incl. and some own for drug therapy in various chronic diseases. The practical significance of these works is that they have been published in journals accessible to the general scientific community on the one hand and general practitioners and pharmacists on the other. For example, using literature and own data, the current state of the pharmacological response to diabetes, asthma, COPD, arthritis, hypertension, acute coronary syndrome and others is described. Monitoring of drug therapy, especially in children, the benefits of generic drugs and the use of OTC drugs are current problems of modern drug therapy, in view of European recommendations to increase the effectiveness and especially reduce the cost of treatment. The theoretical conceptions of different scientific schools about the essence of the concept of pharmaceutical care as an independent scientific field are presented in detail and compared. Its interrelation with the medical-clinical and medico-social disciplines is clarified. The main terms and methods are adapted for use in pharmaceutical practice in Bulgaria. Models have been developed for the introduction of pharmaceutical care in pharmacy practice in various chronic and acute diseases - diabetes, asthma, COPD, arthritis, hypertension, acute coronary syndrome and others. Of paramount importance are studies in the field of pediatric and geriatric therapy - ways to optimize drug therapy, opportunities to promote health, and opportunities to increase the level of compliance in these two high-risk groups of patients. For the first time, the role of medical, economic and psychological factors for the proper conduct of drug therapy is clarified. Through the application of modern approaches and methodologies for pharmaceutical care in the country, the need to create and maintain an up-to-date and complete information system with data on drug therapy of patients in order to avoid drug-related problems has been demonstrated.

The connection between pharmaceutical care and pharmacoconomics in the processing, analysis and evaluation of data on the occurrence of drug-related problems in pharmacy practice is presented. Pharmaco-economic approaches characterize the need to apply pharmaceutical care in practice in order to reduce the economic costs of drug-related problems. An exemplary approach to research and assessment of the availability and accessibility of drugs (over-the-counter) has been developed, as criteria for the level of service of pharmacies.

Marketing analyzes were conducted during the development of new medicinal products in a pharmaceutical company, as well as their imposition on the market. The marketing characteristics of the pharmaceutical market of COPD, asthma, hypertension, neurological diseases, food supplements are analyzed in order to prepare an optimal marketing scheme. The peculiarities of the pharmaceutical marketing, as well as the essence of the innovations and the possibilities for their application in the pharmaceutical industry are studied. Guidelines are provided to improve the application of the principles of good manufacturing practice in pharmaceutical production. The place of the different marketing strategies in increasing the market share of some medicinal products is shown. A marketing approach has been developed for the introduction of new products on the market, as well as the creation of marketing concepts for optimizing the sales of drugs for the treatment of COPD, OTC and others.

The role of the drug-dosage form, packaging (functionality, aesthetics, readability), leaflet in patients of different age groups to avoid non-compliance and other drug-related problems was assessed. The need for properly and accessible drug information presented to the patient in order to avoid possible drug-related problems has been clarified.

Practical rules for ethical professional conduct of health professionals have been developed in order to improve patient care and proper drug use.

Specific approaches and schemes for optimizing the pharmacist-patient relationship are analyzed, revealing the nature and characteristics of self-medication in the country and the preferences of patients when choosing analgesics without a prescription. The place and role of the pharmacist as a leading specialist - patient consultant in the choice of over-the-counter drugs is shown, as well as the importance of introducing the concept of pharmaceutical care in practice.

The characteristics and trends in the habits of prescribing and using different groups of drugs - antidiabetic, antiasthmatic, cardiovascular, antibiotics, etc. have been studied. from chronically ill patients. Based on the results and a comparative analysis with the situation in other countries, recommendations have been made for the formation of an information database

on possible drug-related problems associated with drug use, as well as data on drug use of patients themselves.

Systematized analyzes of the historical conditions for the emergence and development of types of pharmacies and pharmacy establishments in the Burgas region have been conducted. The development has been historically traced and the circumstances under which clinical pharmacy originated in the United States have been analyzed. From a historical point of view, the feminization of the profession is protected, as the appearance of the first women pharmacists in Bulgaria is historically traced.

Senior Assistant Professor Andreevska has participated in 2 projects funded by the CMSc of MU-Sofia and SU-Sofia, as a participant in the research teams.

The contributions from the research activity are diverse and have a high scientific, scientific-applied and original value.

#### Conclusion

From the analysis of the scientific works, the scientific activity, the teaching activity, the scientific contributions and the proofs for them it can be concluded that Senior Assistant Professor Kalina Andreevska, Ph.D., convincingly meets the criteria for awarding the scientific title "Associate Professor". She is an established teacher who can serve for scientific research and training of young people in the field of social medicine and pharmacy. It exceeds the requirements for holding the academic position of "Associate Professor", in accordance with the Regulations on the Terms and Conditions for the Acquisition of Scientific Degrees and Occupation of Academic Positions at Sofia University.

Based on all the above facts, documents and circumstances, I would like to recommend to the distinguished jury to choose as an "Associate professor" in the field of higher education. 7. Health and sports in professional field 7.3. "Pharmacy" and scientific specialty "Social medicine and organization of health care and pharmacy" for the needs of the Faculty of Chemistry and Pharmacy, Sofia University:

Senior Assistant Professor Kalina Gocheva Andreevska, Ph.D.

31.08.2020

Sofia

Reviewer:

/ Prof. V. Petkova, DSc.