

REVIEW

from Prof. Genka Petrova – Tashkova, PhD

Re: Competition: Academic Position "Professor" in the field of higher education " 3. Social, economic and legal sciences, professional field 3.7. Administration and management, in the scientific specialty "Organization and management outside the sphere of material production" at MU-Varna, Medical College, Training sector "Assistant Pharmacist".

I. Regarding the competition: The competition was announced in the State Gazette, issue no. 17/26.02.2021 according to Rector's Order R-109-173 from 23.04.2021. One candidate - Assoc. Prof. Antoaneta Zdravkova Tsvetkova, Ph.D., applied and was admitted to the competition.

II. Biographical data: Assoc. Prof. Antoaneta Tsvetkova is a graduate of MU-Varna, where she obtained her Master's degree in Healthcare Management in 2008 and in 2021 she obtained a Master's degree in "Assessment of Health Technologies with Pharmacoconomics" at MU-Sofia. She has acquired the specialty of "Health Economics" and has participated in a number of training courses, organised by Bulgarian and international organizations in pharmacoconomics, prices and reimbursement of drugs, modern aspects of pharmaceutical marketing, etc. Her Bachelor's degree is in the professional field "Public Health", professional Bachelor's degree "Assistant Pharmacist".

She defended her PhD thesis in 2015, and holds the academic position "Associate Professor" in the scientific specialty "Organization and management outside the field of material production (in branches and sub-branches "Health").

Assoc. Prof. Tsvetkova is a member of a number of European organizations as a partner network of WHO "Regions for Health", BSSPH (Bulgarian Scientific Society of Public Health), international scientific organizations such as ISPOR, International Black Sea Otolaryngology and Neurotology Association, and Bulgarian scientific organizations such as Bulgarian Association of Sleep Apnea and Snoring, Bulgarian Academy of Sleep Medicine.

Public activity: Assoc. Prof. Tsvetkova has been a member and chair of the Standing and Temporary Commissions: Standing Commission on Health Care, Standing Commission on Youth Activities and Sports, Standing Commission of Science and Education, Temporary Commission on Environmental Protection and Reproduction at the Municipal Council of

Varna, Advisory Council on HIV/AIDS Prevention, established in accordance with the adopted "Municipal Strategy for the Prevention of HIV/AIDS 2016 - 2020". She has participated in state examination commissions in the specialty "Health Economics", **working commissions** at the National Center of Public Health and Analyses (NCPHA) on Health Technology Assessment for the period 2017-19. **I consider that as regards her professional development Assoc. Prof. Tsvetkova meets the requirements of the competition, and in addition, she shows constant strife for development and education and she is an active member of society. The combination of her Bachelor's degree with the subsequent Master's degree has shaped a specialist not only in healthcare management but also with sufficient knowledge of pharmacy to be able to conduct research in both fields.**

III. Scientific activity:

III.1. PhD thesis

The PhD thesis is on the topic "Social and pharmacoeconomic aspects of the use of over-the-counter drugs" in the scientific specialty "Organization and management outside the field of material production." It is not envisaged in this review, as it has already been reviewed by a scientific jury, forming 50 points for the applicant of the minimum national criteria under criterion A.

III.1. Monographs

Assoc. Prof. Tsvetkova participated in the competition with a monograph entitled "REGIONAL HEALTH POLICY - ASSESSMENT AND OPPORTUNITIES FOR OPTIMIZATION. PROMOTION OF POLICIES OF THE MUNICIPALITY OF VARNA RELATED TO THE RESIDENTS' HEALTH FOR THE PERIOD 2015-2019", which fulfills the requirements for a monograph and forms 100 points of the minimum national criteria. The purpose of the monograph is to present and analyze policies of the Municipality of Varna related to the health of its inhabitants, to assess the processes and results of the regional health policy in the city of Varna for the period 2015-2019, and the opportunities for its optimization. The analysis was conducted on the territory of the city of Varna by the author (in her capacity of Chair of the Standing Commission on Health at the General Assembly - Varna 2015-2019, member of the Standing Commission on Youth Activities and Sports", Standing Commission on Science and Education, Temporary Commission "Environmental Protection and Reproduction", member of the Advisory Council on HIV/AIDS Prevention). The legislative regulation in the field of healthcare at national and

local level is analyzed in compliance with the EU directives in the field of decentralization of the activities of the central government, regulating the rights and liabilities of the local authorities. This allows for an analysis of the real possibilities of the local government to improve the factors influencing public health and possible recommendations for amending the local legislation in order to optimize its activity. In accordance with the requirements of the Law on the Development of the Academic Staff, the monograph includes the candidate's own research, which was conducted in the Municipality of Varna.

In addition, a monograph is presented, based on the doctoral thesis for obtaining the scientific degree of PhD, on "OTC MEDICAL PRODUCTS - MARKET, ASPECTS OF USE, USER'S PROFILE." This work adds another 75 points to the general assessment according to criterion D.

Furthermore, the monograph that was developed in connection with the acquisition of the scientific title "Associate Professor" on the topic: "EVALUATION OF HEALTH TECHNOLOGIES - FROM POLICIES TO THE PATIENT. APPLICATION OF HEALTH TECHNOLOGIES IN SCREENING, THERAPY AND PREVENTION OF TYPE 2 DIABETES MELLITUS" is presented but will not be reviewed here.

The two monographs presented in this competition are original. As far as I know, there are no similar ones on this topic, and they correspond to the profile and professional development of the candidate. They fully satisfy the requirements of Law on the Development of the Academic staff in the Republic of Bulgaria and the Regulations of MU Varna.

III.2. Scientific publications

The total number of scientific publications in which Assoc. Prof. Tsvetkova is an author or co-author is 84, and their distribution by scientific degrees and positions is 4 for the acquisition of educational and scientific degree "Doctor", 61 for the acquisition of the scientific title "Associate Professor" and 19 for this competition for the acquisition of the scientific title "Professor". In addition, the candidate has participated in over 30 scientific fora: ten with full-text reports in Bulgarian scientific fora, 12 with international participation, 8 international. In the articles for the competition for professor she is an independent author of 3 articles, first author of 6 articles, co-author of 6 articles. According to the attached reference, 5 of the publications are referred to in the Web of Science (WOS) and cover the requirements of MU-Varna points in column D for 200 points, 50 of which are from articles in scientific journals,

referenced and indexed in world famous databases. According to this indicator, the candidate meets the additional requirements of MU-Varna.

The publications that are referenced in WOS on the topic are dedicated to the screening, treatment and adherence to therapy for three socially significant diseases - breast cancer (1), depression (2) and diabetes (2). In four of these publications, Assoc. Prof. Tsvetkova is the first author, which is an indisputable proof of her leading contribution to research. Publications in not peer-reviewed journals continue the themes of her studies concerning informed consent and adherence to therapy (1), pediatric patients - quality of life and prevention (2), over-the-counter drug use and marketing (3), and other studies in the field of regional health and use of medical devices. The author has presented four more publications to the competition, which she has divided as additional, above the minimum national requirements. They are mainly in the field of over-the-counter use and prevention of socially significant diseases.

The studies correspond to the scientific development of the candidate and to the profile of the competition for "Professor" and satisfy the requirements of the Regulations to Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations on the Development of Academic Staff at MU Varna.

III.3. Other scientific activities

Assoc. Prof. Tsvetkova also participated in two projects, respectively "Project G051PO001-3.1.09-0013 - Pedagogical foundations of academic teaching" Operational Program "Human Resources Development", European Social Fund and as well as Project BG051PO001-3.1.09 - 0013 - Intensive specialized foreign language training in English level B1-Operational Program "Human Resources Development", European Social Fund. She was also an academic mentor on project BG051PO001-3.3.7-0002-C0001 "Students Internships" under OP "Human Resources Development".

The scientific activity also includes participation as a jury member in the Startup Weekend Varna Mobile 2016 project; Consultant and expert - SOS Center Medical Center / Dream Business Solutions; Member of the team under the project "Regional Partnership for Health and Sustainable Development" - Norway Grants and Consultant - TRANSTEM: ERA Char in Translational Stem Cell Biology.

Participation in scientific congresses and conferences supports the thesis that the results of Assoc. Prof. Tsvetkova's works are widely presented and discussed at scientific fora. I would like to recommend the scientific publications which are part of the conference papers

to be added and collected as scientific papers as they are interesting, innovative and thus will become more popular among the scientific community.

III.4. Citations

Data are presented both in the academic reference and the additional references for citations in ResearchGate-22, Google Scholar-46, publons-7, which are also divided in minimally required and exceeding the requirements. **The citations also cover the requirements according to the Regulations of the Law on the Development of Academic Staff (LDAS) and the Regulations of the Medical University of Varna.**

IV. Teaching activities

Assoc. Prof. Tsvetkova takes part in the following teaching activities: seminars in the Master's programme in pharmacy in the discipline "Pharmacoeconomics" at the Faculty of Pharmacy in Varna, lectures and seminars in the Master's programme in pharmaceutical management in the disciplines "Applied Aspects of Economic Theory in the Healthcare and Pharmaceutical Sectors" and "Organisation of Work and Care in Over-the-counter Drug Products" at the Faculty of Pharmacy at Varna Medical University, lectures and seminars in the disciplines "Social Pharmacy and Pharmaceutical Legislation", "Medical Devices" at the Medical College of Varna, mentor of a training practice and pre-graduation internship of assistant pharmacists at the Medical College of Varna.

Teaching experience: 9 years and 6 months on a full time contract and 9 months on a part-time contract (academic year 2010/2011).

Number of hours teaching workload:

2016/2017 Lectures -98, Seminars -698 = 796

2017/2018 Lectures -81, Seminars -404 = 645

2018/2019 Lectures -96, Seminars -130, Teaching practice - 270, Pre-graduation internship - 200 = 696

2019/2020 Lectures -117, Seminars -137, Teaching practice -250, Pre-graduation internship - 120 = 624

Assoc. Prof. Tsvetkova is co-author of separate parts in three teaching manuals as follows:

1. Teaching guidelines: The guidelines are intended for practical seminars in the discipline "Social Pharmacy and Pharmaceutical Legislation" for students trained for assistant pharmacists and comply with the teaching curriculum and syllabus, approved by the National

Evaluation and Accreditation Agency. It contains the following parts: organization of drug supply, accountability in pharmaceutical establishments, drug supply process, pharmaceutical information, financing and crediting, drug prices and price formation, taxation system. Practical tasks are developed to every part for students' self-study.

2. **Textbook:** "Practical training methodology for students of the professional field "Nursing care" – teaching methodology for students' practical training.

3. **Textbook:** "Pharmacoeconomics" for students in the Master's programme in pharmacy and nursing care specialists – with practical application in the students' training in the specialty of pharmacy in the discipline of pharmacoeconomics, and for the students of pharmaceutical management in the disciplines "Applied aspects of the economic theory in the healthcare and the pharmaceutical sector", "Organisation of work and care in over-the-counter drug products".

Assoc. Prof. Tsvetkova is an academic mentor of three post-graduate students and two PhD students:

1. Stanila Seryozheva Stoeva – Master pharmacist, defended a PhD thesis "New aspects in the liquid chromatographic analysis of Capecitabine in samples of biological and non-biological origin".

2. Stanislava Georgieva - Master pharmacist, title of PhD thesis "Characteristic features of acute medication poisoning in the region of Varna for the past 30 years".

These facts indicate an active teaching attitude, strife for creating adepts and followers, which is an indisputable contribution of Assoc. Prof. Tsvetkova.

IV. Summary of the candidate's contributions

One of the monographs is dedicated to the field of health technologies evaluation and part of the publications are related to topical problems of modern healthcare, namely, how the healthcare system is affected by the new health technologies and what measures it undertakes to ensure the patients' access to them through the setting of appropriate mechanisms at political level. The candidate explores the impact of the new technologies on socially significant diseases (diabetes, cancer of the mammary gland) and the new medical devices. These studies are conducted within the activities of the Municipality of Varna as part of the municipal health policy. Therefore, the publications have practical significance.

The issue of health technologies assessment is also studied as part of the state and municipal policy.

The second direction of her scientific work is the field of pharmaceutical care. The publications on the topic confirm that the knowledge and skills can be used for analysis and assessment of the effects of decisions at macro level, which have an impact on the patients from the point of view of pharmacy as part of health care. They confirm the FIP concept of "Pharmaceutical care" as an ever increasing need for the better treatment of the Bulgarian patient which beside the improved quality of life and longevity exerts a positive impact on the health budget by saving considerable costs.

In the field of drug product use prescribed over the counter, the international processes have been explained together with the general trends in the pharmaceutical sector, which also affect the changes on the market of the pharmaceutical product and the consumer profile. This requires an analysis of the trends and the outlining of more salient characteristics of the modern consumer's changing status and profile under conditions of competitive market environment, in drug provision and drug services in Bulgaria. The scientific publications in this field confirm a number of trends worldwide.

To my mind, the most significant contributions are in the sphere of municipal drug and health policies. They combine not only the candidate's scientific research but also her practical experience. An analysis was performed of the legislative regulations in healthcare at national and local level in accordance with the EU directives for the decentralization of the central authorities activities, regulating the rights and liabilities of the local authorities. The conclusions, analyses and recommendations are valuable due to the fact that they are drawn on the basis of direct studies for the period 2015-2019 in view of the actual activities and outcomes of the implemented social, preventive, health projects as planned by the author. The analysis of the health policies and their outcomes are useful not only for Varna Municipality but also for other municipalities, too, due to the fact that the tasks and the funding mechanisms and the national programmes examined in the candidate's scientific work, are subject to a unified health strategy of the Republic of Bulgaria, synchronized with that of the European Union.

The idea is confirmed that the prevention programmes present a mechanism for the improvement of the access to health services.

IV. Comparative table for the required criteria and the materials presented by the candidate

INDICATORS	MINIMUM REQUIREMENTS	REQUIREMENTS according to RASD of MU - Varna	NUMBER OF ATTAINED POINTS
A	50	50	50
B – N/A			
B	100	100	100
Г	200	200	205.33
Д	50	100	120
E	-	100	208.91
	Teaching activity	teaching workload not less than 100 hours on average for 4 years	Average for 4 години 690,25 teaching workload /attached a certificate from the Students' Affairs Department/
TOTAL NUMBER OF POINTS	400	550	684,24

VI. Conclusion

In view of the fulfilled minimum state requirements and their excess according to the indicators as well as the professional development, the teaching activities, scientific achievement, public and administrative activities, I consider that Assoc. Prof. Antoaneta Tsvetkova meets the requirements to occupy the academic position "Professor" in the field of higher education" 3. Social, economic and legal sciences, professional division 3.7. Administration and management, in scientific specialty "Organisation and management outside the sphere of material production" at the Medical University of Varna, Medical College, Training sector "Assistant pharmacist".

14.05.2021

Reviewer:

Prof. Genka Petrova, PhD