

OPINION

by Associate Professor Dr. Katerina Ilionova Stambolieva,
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Regarding: competition for the academic position "professor" in the field of higher education 4. Natural sciences, mathematics and informatics; professional field 4.3. Biological Sciences; scientific specialty "Physiology" at the Department of "Physiology and Pathophysiology", Faculty of Medicine, Medical University - Varna. Announcement was published in the State Gazette issue 102 / 23.12.2022.

By Order № R-109-131 / 22.02. 2023 of the Deputy Rector of the Medical University - Varna, I was elected as a member of the Scientific Jury, and at a meeting of the Jury, I have been appointed to prepare an opinion on the procedure for holding the academic position "professor".

The only candidate in the competition is Assoc. Prof. Dr. Margarita Stefanova Velikova, MD. I was provided with all the documents required by the Regulations for the development of the academic staff at the Medical University - Varna.

Assoc. Prof. Velikova graduated in medicine from Medical University of Varna in 1988. In 1991 she was appointed Assist. Prof. in the Department of Physiology. In 2010, she received the educational and scientific degree "Doctor" in the scientific specialty 01.06.17 "Physiology of animals and man" after defending a thesis "Behavioral responses induced by vasoactive intestinal peptide introduced into the hippocampus of rats with an experimental model of depression". Since 2012, she has been appointed an Associate Professor in the Department of Physiology and Pathophysiology.

Assoc. Prof. Margarita Velikova applied to the competition with a total of 53 scientific publications, which do not repeat the works for obtaining the degrees "Doctor" and "Associate professor". Ten of these are articles, published in journals, indexed in Web of science and Scopus databases and are presented as corresponding ones to a habilitation work (group indicators C). Another 20 publications in journals (Web of science, Scopus) are included in group indicators D. In addition, 23 articles, beyond the minimum scientometric requirements are presented. 21 of the publications are in journals with an impact factor (IF); and their total IF is 40,224. Assoc. Prof. Velikova is the first (18) or second (18) author in 36

of the publications. The reference from the MU-Varna library includes 116 citations in journals referenced in Web of science and Scopus databases. The high citation rate of the publications is an indicator for the international recognition of the scientific work of the candidate. Over the years, Assoc. Prof. Velikova has participated in 55 scientific forums (11 international, 22 national with international participation and 23 national). Her scientific activity includes also a participation in the development of three scientific projects, two of which were carried out jointly with the Bulgarian Academy of Sciences; she is currently the head of a project financed by the "Science" fund, MU-Varna.

Assoc. Prof. Velikova's scientific research work covers five scientific fields:

- I. Experimental neurophysiology studies on the involvement of the brain endocannabinoid system (ECS), renin-angiotensin system (RAS) and brain vasoactive intestinal peptide (VIP) in the mechanisms of depression-like state induced by bilateral olfactory bulbectomy (OBX) of rats.
- II. Studies on the lateralization of behavioral responses of brain structures (hippocampus, amygdala) involved in the depressive-like state upon administration of neuropeptides (VIP, Ang II), antagonists of their receptors and cannabinoid receptor ligands.
- III. Studies on the role of the hippocampal renin-angiotensin system and the brain endocannabinoid system in behavioral responses in the rat.
- IV. A study of the influence of hormones of the hypothalamic-pituitary-thyroid hormone axis (HPT) on the hemostasis and fibrinolysis in rats.
- V. Evaluation of the mental health of medical students and the reactivity of the human organism to stress.

The contributions of the scientific work are presented in detail in the author reference. The presentation is systematic, logical, and shows the broad knowledge of the candidate in the relevant scientific field. The in-depth and targeted research over the years on the functional role of neuropeptides and endocannabinoids in the regulation of neuronal processes and in the implementation of some behavioral reactions, as well as their participation in the mechanisms of depressive disorders, is impressive. I accept without any remarks the author reference for the scientific contributions of the publications.

Assoc. Prof. Velikova has over 31 years of teaching experience in the Department and a very high academic workload (over 550 academic hours/year average). The educational and

teaching activities include conducting lectures and exercises for students of medicine, dentistry and pharmacy, preparation of curricula for the teaching of physiology for the specialties of medicine, dental medicine, and for training in the doctoral program in physiology. As an author or co-author, she contributed to the writing of laboratory manuals for students of various specialties at MU- Varna. Assoc. Prof. Velikova also carries out responsible administrative activities, having successively held the positions of administrative assistant, foreign language training coordinator, course leader, head of the physiology Division, and head of the Department. In addition, she imparts her experience and knowledge in the training of young scientists, being the scientific supervisor of 3 doctoral students, two of whom defended their degrees, and the supervisor of 2 graduates and 2 young specialists.

In conclusion, I believe that Assoc. Prof. Margarita Velikova, MD, PhD, is a highly qualified scientist, with significant scientific achievements and with many years of teaching experience, who will contribute to the future development of the Department. The scientific indicators significantly exceed the minimum requirements specified in the Regulations for the Application of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Development of the Academic Staff of MU-Varna for occupying the academic position "professor".

Based on the above mentioned I give a *positive* assessment and I suggest the Scientific Jury to recommend to the Faculty Council to elect Associate Professor Margarita Stefanova Velikova, MD, PhD, as a "professor" in the field of higher education: 4. Natural sciences, mathematics and informatics, professional field. 4.3. Biological sciences, specialty "Physiology" for the needs of the Department of "Physiology and Pathophysiology", Faculty of Medicine, Medical University-Varna.

Member of the Scientific Jury,

Assoc. Prof. Katerina Stambolieva



Sofia, 24.04. 2023