



VCU

МЕДИЦИНСКИ УНИВЕРСИТЕТ
ПЛОВДИВ

Вх. № 9-11632/ .. 20. 12. 2021 .. г.

To the Chairman of the Scientific Jury
Appointed by Order № P - 1882 / 22.10.2021
By the Rector of the Medical University - Plovdiv
15A V. Aprilov Blvd.
4002 Plovdiv

Institute for Drug & Alcohol Studies

203 East Cary Street, suite 202A
Box 980059
Richmond, Virginia 23298-0059

804-828-5807 • Fax: 804-827-2770
TDD: 1-800-828-1120 (TTY)
jasmin.vassileva@vcuhealth.org
idas.vcu.edu

Based on your Protocol №1 / from 03.11.2021

Jasmin Vassileva, Ph.D.
Associate Professor of Psychiatry and Psychology

Attached I present: Review in a competition for the academic position of
"Associate Professor"

In the scientific specialty "Psychiatry" at the Department of Psychiatry and
Medical Psychology of Medical University - Plovdiv with candidate Head
Assistant Professor Dr. Sevdalina Kandilarova, MD, PhD, announced in SG,
no. 63 / 30.07.2021

Reviewer: Assoc. Prof. Jasmin Lyudmilova Vassileva, PhD
Virginia Commonwealth University, USA.

Scientific Specialty: Clinical Psychology / Neuropsychology

Institution: Virginia Commonwealth University, USA

Address: Institute for Drug and Alcohol Studies, 203 East Cary Street, suite
202A, Box 980059, Richmond, VA 23219, USA

Email: jasmin.vassileva@vcuhealth.org

Telephone: 0886839834

Review
From Assoc. Prof. Jasmin Vassileva

Regarding the competition for the academic position of "ASSOCIATE PROFESSOR" in the scientific specialty "**Psychiatry**" in the field of higher education 7. Health and sports, professional field 7.1. Medicine, at the Department of Psychiatry and Medical Psychology at the Medical University of Plovdiv for teaching in Bulgarian and in English in the discipline "Psychiatry" announced in SG no. 63 of 30.07.2021, on an approved proposal of a scientific jury by the Faculty Council of the Medical Faculty of the Medical University of Plovdiv Protocol № 7 of 13.10.2021

Candidate: Head Assistant Professor Dr. Sevdalina Kandilarova, MD

I. Analysis of the Candidate's Career Profile

Dr. Kandilarova studied medicine (1999-2005) at the Medical University of Plovdiv and obtained a diploma of Master of Medicine with honours. In 2006 - 2007 she was part of a fMRI research group (headed by Prof. Hugdahl), Section of Cognitive Neuroscience, Department of Biological and Medical Psychology, University of Bergen, Norway, where she worked as a research assistant. From October 2007 to September 2008 she worked as a resident doctor in the Department of Geropsychiatry, Psychosomatic Clinic, Haukeland University Hospital, Bergen, Norway, and then until 2010 she was a psychiatrist at the same hospital. In 2012, Dr. Kandilarova enrolled as a full-time doctoral student at the Department of Psychiatry and Medical Psychology, Medical University of Plovdiv (MUP). At the same time, from 2013 to 2017 she specialized psychiatry at the Clinic of Psychiatry of the University Hospital "St. George". In May 2017 she acquired her specialty in psychiatry, and in November of the same year she successfully defended her dissertation on "Neurophysiological markers for diagnosis and prognosis of depression" and received her PhD degree in Psychiatry. In the period 2014-2018 she was an Assistant Professor at the Department of Psychiatry and Medical Psychology of MUP. Following a competition in March 2018, she was appointed as assistant professor in the same department where she still teaches. Since 2015, the candidate has been actively involved in the research activities of the newly established Research Complex of Translational Neuroscience, where she is engaged in programming paradigms for functional MRI, data acquisition and data analysis. She has been trained at leading neuroimaging centers in Bergen, Norway and Basel, Switzerland, where she has created successful and long-lasting research collaborations. From the beginning of 2021 until now she has been working as a psychiatrist at the Clinic of Psychiatry and Medical Psychology at the University Hospital "St. George".

Evaluation: Dr. Kandilarova has remarkable professional achievements and is a national leader in a field that is high priority (neuroimaging) and with great potential for development. Dr. Kandilarova's scholarly work reflects deep theoretical knowledge and world-class analytical and practical skills. She has been involved as an investigator, author and/or educator in fields that are cutting edge and likely to be very important in the coming years. Overall, Dr. Kandilarova is truly a 'triple treat', i.e. someone who is excellent in research, as an educator, and as a clinician. Her career reveals a rare combination of world-class excellence in research, education, and clinical practice.

II. General Description of the Materials Submitted in the Competition

The materials submitted by the candidate are complete and comply with the requirements of the Act for the development of the academic staff in the Republic of Bulgaria and the Regulations of MU - Plovdiv. The necessary administrative documents are provided (copies of diplomas, certificates and other documents certifying various academic activities and skills), as well as evidence of the scientific work, including:

- Habilitation work, in the form of ten scientific publications in journals that are referenced and indexed in worldwide databases of scientific information (Scopus and Web of science).
- Publications and reports in scientific journals, referenced and indexed in worldwide databases with scientific information (only Scopus and Web of science), which do not repeat the 10 scientific publications presented for the habilitation work – 16 pcs (14 with IF).
- Publications in unreferenced journals with scientific review or published in edited collective volumes – 3 pcs.

Dr. Kandilarova is part of the author's team of 4 textbooks for medical students in Bulgarian and in English, in the subjects of Psychiatry and Medical Psychology, respectively.

The significance of her scientific works can be seen in the presented 50 citations in referenced editions, 49 of which are in journals with IF mainly between 3 and 6, reaching 13,382.

III. Evaluation of the Candidate's Scientific Work Across her Entire Academic Development

1. General characteristics of the scientific production and publishing activity

The scientific papers submitted for review by Dr. Kandilarova meet the requirements of the Regulations of MU Plovdiv for holding the title "ASSOCIATE PROFESSOR". The main research areas of the candidate include:

Unconventional Functional Magnetic Resonance Imaging (fMRI). The candidate has been actively involved in the development of an innovative research model to establish translational "bridges" between neuroimaging markers and clinical psychological scales. She developed suitable paradigms for fMRI and applied them to patients with schizophrenia, bipolar and unipolar depression. Data from applying this method in patients with depression and healthy controls are presented in her doctoral dissertation "Neurophysiological markers for diagnosis and prognosis of depression." During the course of this project, she developed an upgraded paradigm for patients with schizophrenia and depression. Findings from this line of research are reflected in about half of Dr. Kandilarova's publications. Determining the contribution of various imaging modalities (structural, functional at rest, and functional during task performance) to the differential diagnosis of schizophrenia and affective disorders, is of great scientific and clinical value.

fMRI at Rest. By using state-of-the-science methods for studying effective connectivity, i.e. spectral dynamic causal modelling, the candidate reveals disturbances in the functional connections between different nodes of brain networks at rest in patients with depression. Original and widely cited findings on the role of the anterior insula are presented. Another significant contribution of the candidate is the identification of connectivity changes in a transdiagnostic study of patients with schizophrenia, bipolar and unipolar depression. Potential differential diagnostic markers distinguishing bipolar from unipolar depression with an accuracy of about 75% were found, reflecting the effective connectivity from the left lateral orbitofrontal cortex to the left anterior precuneus.

Conventional Task-Related fMRI. Dr. Kandilarova has developed an original block paradigm for the simultaneous application of visual stimuli from the International Affective Pictures System (IAPS) and fMRI. Applied to patients with depression and healthy controls, it provides significant theoretical and methodological contributions by evidencing the superiority of multivariate analytic methods in multimodal structural and task-related fMRI data, compared to the widely used classical univariate methods.

In addition, she developed a paradigm based on the Paced Visual Serial Addition Test (PVSAT) in collaboration with the Department of Neurology. It has been used in patients with recurrent relapsing multiple sclerosis and original results on the importance of fatigue have been published. The candidate's scientific contributions are related to enriching knowledge about the functional consequences of the disease.

Structural MRI. Dr. Kandilarova used voxel-based morphometry as a method for quantitative analysis of structural data in patients with depression and healthy controls. She demonstrated a correlation between depression and significant reduction in the volume of grey matter in certain frontal and temporal regions, which has significant scientific and clinical value. This topic was further developed in the subsequent meta-analysis with wide international participation comparing depression, anxiety disorders and post-traumatic stress disorder, which uncovered structural correlates specific to individual disorders.

2. Scientific activity - dissemination and application of the scientific and practical achievements of the candidate among the scientific community

Dr. Kandilarova is part of the author's team of 4 textbooks for medical students in Bulgarian and in English, in the subjects of Psychiatry and Medical Psychology, respectively.

3. Participation in the implementation and management of projects

Dr. Kandilarova is actively involved in 2 international (head researcher), 3 national, and 4 university projects.

IV. Reflection (citations) of the Candidate's Publications in the National and International Literature (publication image)

Evidence for 50 citations (referenced and indexed in global databases) was presented to the attention of the scientific jury, 49 of which are in journals with IF, up to 13 and above. These indicators vastly exceed the minimum requirements. A search of the Scopus database revealed that the candidate's current Hirsch index was 7. Her current i10-index is 8. She is a reviewer of prestigious journals with impact factor, such as the Journal of Affective Disorders and Acta Radiologica.

V. Qualitative Assessment of the Candidate's Teaching Activities

Dr. Kandilarova began her teaching career in 2014, when she was appointed as an Assistant Professor at the Department of Psychiatry and Medical Psychology, MU-Plovdiv. Since then, she has been conducting practical trainings in psychiatry and medical psychology for medical and dental students in both Bulgarian and English. She also teaches periodically general medicine specialists and medical college students. Since 2019, she has been responsible for the online teaching at the Department. The information provided for the average annual workload shows that the candidate significantly exceeds the norm for non-habilitated lecturers at MU-Plovdiv. Participation as an author of various textbooks in Bulgarian and English is a proof of the candidate's teaching authority. Dr. Kandilarova systematically trains students, PhD students and researchers in neuroimaging methods, including paradigm building, fMRI data collection, processing, and analysis. Her joint publications and projects with undergraduate and doctoral students are evidence of her successful work in this area.

VI. Critical Remarks and Recommendations.

None.

VII . Overall Assessment

According to the analysis of the submitted documents and the attached reference - self-assessment for compliance with the National Minimum Requirements for Scientometric Indicators, Dr. Sevdalina Kandilarova fully meets and exceeds the mandatory conditions for holding the academic position of "Associate Professor" according to LDASRB.

Group of indicators	Minimum requirements	Real indicators of the candidate
Group A	50	50
Group B	100	103.37
Group D	200	244.14
Group D	100	750
Group E	60	196.7
Group G	300	677.25
Total	810	2021.46

VIII. CONCLUSION

The above indicators from the provided reference - self-assessment of Dr. Kandilarova fully cover and vastly exceed the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation and the Regulations of MU - Plovdiv. Dr. Kandilarova has the authority of an established professional, educator, and researcher with international recognition. Her entire scientific and teaching activity meets the mandatory and specific conditions and scientometric criteria set out in the LDASRB, the Regulations for its implementation and the Regulations of MU-Plovdiv for the academic position of "ASSOCIATE PROFESSOR".

Based on this, I give a positive review and enthusiastically support awarding the academic title of "Associate Professor", in the scientific specialty of Psychiatry, in the Department of Psychiatry and Medical Psychology at MU - Plovdiv to Dr. Sevdalina Kandilarova, MD.

Reviewer:



Jasmin Vassileva, Ph.D.
Associate Professor of Psychiatry and Psychology