To

The Chairman of the Scientific Jury,

Designated by a written order № P-1882/22.10.2021г

Of the Rector of the Medical University – Plovdiv

15A , Vassil Aprilov Blvd, 4002 Plovdiv

Regarding your protocol № 1/3.11.2021 г.

Attached is: STATEMENT

Of competition for academic position "Associate Professsor"

Scientific specialty: Psychiatry for the need of Department Psychiatry and medical psychology of the Medical University – Plovdiv for the needs of the Bulgarian-language and English-language teaching and candidate Chief Assistant Sevdalina Kandilarova, MD, PhD

Announced in the State Newspaper, Issue 63/30.07.2021

Reviewer: Prof. Dora Konstantinova Zlatareva, MD, PhD, Head of Department Diagnostic Imaging, Medical University Sofia

Scientific specialty: Diagnostic Imaging

Institution: Medical University Sofia

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The review is composed in accordance with the requirements of the Law of the Development of Academic Staff in the Republic of Bulgaria, and Sections III /IV of the Rules for placing into practice of the Law of the Development of Academic Staff in the Republic of Bulgaria - Terms and Procedure for Academic Position "Associate Professsor"/"Professor"

STATEMENT

From Prof. Dora Konstantinova Zlatareva, MD, PhD regarding competition for Academic position "Associate Professsor" Scientific specialty: Psychiatry Department Psychiatry and medical psychology in area of Higher education 7. Healthcare and sport, professional branch 7.1. Medicine for the need of Department Psychiatry and medical psychology of the Medical University – Plovdiv for the needs of the Bulgarian-language and English-language teaching Announced in the State Newspaper, Issue 63/30.07.2021 on the approved proposal of a Scientific Jury of the Faculty Council of the Medical Faculty of the Medical University – Plovdiv, protocol № 7/13.10.2021

There is one candidate: Chief Assistant Sevdalina Kandilarova, MD, PhD

I Candidate

Chief Assistant Sevdalina Sevdalinova Karaivanova-Kandilarova MD, PhD was born on 13.06.1981г. She studied medicine (1999-2005) at the Medical Faculty at the Medical University of Plovdiv and obtained a diploma of Master of Medicine. From August 2006 to May 2007 was a member of the research group on fMRI (led by Prof. Hugdal), Department of Cognitive Neuroscience, Department of Biological and Medical Psychology, University of Bergen, Norway. For the indicated period she carried out research, project planning, statistical processing and data analysis. From October 2007 to September 2008 he worked as a resident doctor in the Department of Gerontopsychiatry, Psychosomatic Clinic, Haukeland University Hospital, Bergen, Norway. The candidate specialized in psychiatry from 10.2008 to 06.2010 in the same hospital. Dr. Kandilarova was a doctoral student at the Department of Psychiatry and Medical Psychology, Medical University of Plovdiv from 09.2012 to 11.2016. In the period March 2013 - March 2017 specialized in psychiatry at the same Department on the basis of UMHAT "St. Georgi "EAD Clinic of Psychiatry. Dr. Kandilarova obtained a diploma for PhD Doctor of Psychiatry on 27.11.2017. with PhD Thesis on "Neurophysiological markers for the diagnosis and prognosis of depression." From 2014 to 03.2018 she was an Assistant at the Department of

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Psychiatry and Medical Psychology, MU-Plovdiv, and from 03.2018 she has been a Chief Assistant. In parallel, from 10.2015 to 01.2021 Dr. Kandilarova conducted research in the field of functional magnetic resonance imaging in the Research Complex of Translational Neuroscience, MU-Plovdiv. From 02.2021 to the present she has been working at the University Hospital "St. Georgi "EAD Clinic of Psychiatry and Medical Psychology. The candidate has an excellent level of proficiency in English and Norwegian and a good level of proficiency in French. The candidate is a member of different Bulgarian and international scientific societies.

II. Description of the submitted material for competition

1. Habilitation work, in the form of ten scientific publications in publications that are referenced and indexed in world-famous databases of scientific information (Scopus and Web of science) **Scientific metrics Group. B.4 – 103,37 points**

2. Publications and reports in scientific journals, referenced and indexed in world databases with scientific information (only Scopus and Web of science), which do not repeat the 10 scientific publications presented for the habilitation thesis **16 (14 with IF) Scientific metrics Group Г.7 – 227,14 points**

3. Publications in unreferred scientific peer-reviewed journals or published in edited collective volumes – 3, **Scientific metrics Group Г.8- 17points**

4. University textbooks with the relevant ISBN / co-author /- **4, Scientific metrics Group E.20 -11,7p**

III. Assessment of the applicant's scientific work or equivalent publications for his overall academic development

The publications submitted for review by number and type meet the requirements of the Regulations of MU Plovdiv for the occupation of the Academic position "Associate Professsor"

Dr. Kandilarova's main research interests are realized by magnetic resonance imaging of patients with schizophrenia, bipolar and monopolar depression. Contributions can be summarized in the following areas:

1. **Unconventional functional MR imaging (fRI).** Dr. Kandilarova was a main participant in the development of an innovative research model for establishing "bridges" of translation between neuroimaging markers and clinical psychological scales. The research was conducted in the Complex for Translational Neuroscience at the Scientific Institute at the Medical University of Plovdiv. The successful application of the method in patients with depression compared with healthy controls is the subject of the PhD Thesis "Neurophysiological markers for the diagnosis and prognosis of depression" of Dr. Kandilarova. As a follow-up, an upgrading paradigm has been developed for patients with schizophrenia and depression (bipolar or major depressive disorder). The results of this study have been presented in about half of Dr. Kandilarova's publications. Determining the contribution of the various modalities (structure, function at rest and function at task performance) to the differential diagnosis of schizophrenia and affective disorders is of great scientific and applied value.

2. **Conventional (fMI) imaging at rest.** Disorders in the functional connections between different nodes of the brain network in patients with depression have been revealed and original results for the role of the anterior insula have been established. Another significant contribution is the identification of disconnectivity in a transdiagnostic study of patients with schizophrenia, bipolar and monopolar depression. Potential differential diagnostic markers have been identified, such as the values of effective connectivity from the left lateral orbitofrontal cortex to the left anterior precuneus, which could be used to differentiate bipolar from monopolar depression with an accuracy of about 75%.

3. **Functional MR imaging when performing tasks** An original block paradigm has been developed for the simultaneous application of visual stimuli by the International Affective Pictures System (IAPS) and fMRI. which has been applied in patients with depression and healthy controls. Significant theoretical and methodological contributions in this area are the evidence found for the advantage of the methods of multivariate analysis in multimodal data from structural and fMRI in performing the task, compared to the widely used classical

univariate methods. Together with the Department of Nervous Diseases, a paradigm has been developed based on the Visual Serial Test for Setting at a Set Rate in patients with recurrent relapsing multiple sclerosis. Scientific contributions are related to enriching knowledge about the functional consequences of the disease.

4. **Structural MR imaging in patients with mental disorders** Voxel-based morphometry was used in patients with depression and healthy controls. A significant scientific and applied contribution is to define a correlation between depression and a significant reduction in the volume of gray matter in certain regions of the frontal and temporal lobes. The topic was upgraded in the subsequent meta-analysis to compare depression, anxiety disorders and post-traumatic stress disorder with the establishment of disorder-specific structural correlates.

IV. Impact of (citing) the applicant's scientific work in national and foreign literature (publishing image)

Number of citations, referred and indexed in global databases – 50 **Scientific metrics Group Д.10 – 750 points**

The original results of Dr. Kandilarova's scientific works are widely reflected in foreign literature, as proven by the large number of citations in world databases.

V. Comprehensive qualitative evaluation of the teaching methodological and teaching activities

The teaching activity of Dr. Sevdalina Sevdalinova Karaivanova-Kandilarova, MD started in 2014 with her appointment as an Assistant at the Department of Psychiatry and Medical Psychology, MU-Plovdiv. The information provided for the average annual teaching workload shows that the candidate significantly exceeds the norm for non-habilitated lecturers at MU-Plovdiv. Scientific metrics Group Ж – 377,25т. Dr. Kandilarova teaches psychiatry Bulgarian and English speaking medical students. In recent years she has been responsible for online training at the Department. This is proof of both the teaching qualities of the candidate and the

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trust she enjoys among her colleagues. Participation as a coauthor in various textbooks in Bulgarian and English contributes to building her overall image as a teacher and scientist. The candidate has participated in a number of international trainings for functional magnetic resonance imaging.

Dr. Kandilarova participates in 7 national and 2 international research projects. **Scientific metrics Group E.16 – 105points, Group E.17- 40 points**

VI. Overall assessment

Based on the submitted self-assessment report regarding the fulfillment of the National Minimum Requirements for Scientific Metrics, Dr. Sevdalina Kandilarova fully meets and exceeds the obligatory requirements for holding an academic position Associate Professor in accordance with the requirements of The Law on the Development of Academic Staff in the Republic of Bulgaria.

CONCLUSION

The above indicators for the attached reference - self-assessment of Sevdalina Sevdalinova Karaivanova-Kandilarova MD, PhD fully cover and exceed the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, Rules for placing into practice of the Law of the Development of Academic Staff in the Republic of Bulgaria and the Regulations of MU - Plovdiv. Dr. Kandilarova is a scientist with recognized authority in Bulgaria and abroad, who applies innovative concepts and methods of research.

The candidate improves her qualification through several international trainings. She is an active participant in national and international projects and has several years of experience in teaching psychiatry Bulgarian and English speaking medical students. He is a co-author of textbooks in the same field.

Based on the above, I confidently give my positive assessment and recommend to the esteemed members of the Scientific Jury to vote positively for the election of Dr. Sevdalina Sevdalinova Karaivanova-Kandilarova for the occupation of AD "Associate Professor".

17.12. 2021
Гр. София

Проф. д-р Дора Константинова Златарева дм