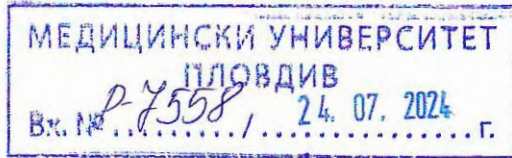


To
The Chairman of the Scientific jury,
determined with an order
№ P-2240/28.06.2024
by the Vice-rector
of Medical University - Plovdiv



15A V. Aprilov Blvd
4002 Plovdiv

On your Protocol No. 1/ from 05.07.2024

Attached I present: REVIEW

Regarding the conduct of a contest for the occupation of the academic position "Professor" in the field of higher education 7. Health care and sport; professional area 7.1. Medicine and speciality "Neurosurgery", announced for the needs of the Neurosurgery department of Medical university - Plovdiv in the SG № 35/19.04.2024

Reviewer: Corresponding member Prof. Dr. Nikolay Gabrovsky, MD, PhD DMSc

Scientific specialty: Neurosurgery

Institution:

- Head of the Neurosurgery Clinic of University Hospital "Pirogov" - Sofia
- Chief coordinator of the Expert Council on Neurosurgery at the Ministry of Health
- Chairman of the Bulgarian Neurosurgery Society

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Заличено на основание

One candidate participated in the competition - Assoc. Prof. Dr. Ivo Inkov Kehayov, MD, PhD.

I. BRIEF BIOGRAPHICAL DATA AND ANALYSIS OF THE CANDIDATE'S CAREER DEVELOPMENT

Assoc. Prof. I. Kehayov was born in 1980. In 2005, he graduated as a master's doctor in Medicine at the MU - Plovdiv with excellent evaluation and acquired the educational degree "Master of Medicine". From 2006 to 2011, he was a resident in the Clinic of Neurosurgery in the University Hospital "St. George" - Plovdiv. He holds a diploma for acquired specialty in neurosurgery since 2012. The candidate has completed numerous specializations in Bulgaria and abroad in the field of image-guided spinal surgery, neuro-oncology, vascular neurosurgery, neuroendoscopic and minimally invasive treatment of degenerative spinal diseases, etc.

He has an excellent command of the English language, which is evident from the presented Cambridge University certificates – FCE (B2 level) and CAE (C1 level). Has basic knowledge of German and Russian languages.

In 2013, he acquired the title "Doctor" after successfully completing a dissertation on the topic: *“Monitoring of neurocognitive disorders and their impact on the quality of life in patients with supratentorial brain tumors.”*

Since 2012, following a contest, he has been chosen to occupy the position of academic position "Assistant professor", in 2014 - "Chief Assistant Professor". Since 2018, he has held the position of Associate Professor at the Department of Neurosurgery at the Medical University of Plovdiv. Since 2020 he has been the Head of the Department of Neurosurgery, and from 2024 he was elected a member of the Academic Council of MU-Plovdiv.

The candidate is a member of the following organizations:

- Bulgarian Medical Association (BMA)
- Bulgarian Society of Neurosurgery (member of the Board of Directors of BSN)
- European Association of Neurological Surgeons (EANS)
- AO Spine
- The Expert Council on Neurosurgery at the Ministry of Health
- The State Examination Committee for obtaining a specialty in neurosurgery

In 2017, he was awarded the Medal of Honor of the regional Bulgarian Medical Association - Plovdiv.

II. ASSESSMENT OF SCIENCES ACTIVITY FOR COMPREHENSIVE ACADEMIC DEVELOPMENT

Assoc. Prof. Kehayov has a total of **49** publications in scientific journals indexed in Scopus and/or Web of Science, **24** of which have an impact factor, **15** publications in non-refereed journals, **13** publications in scientific collections, he is the author of **1** university textbook under his editorship, is a member of the editorial board and the author of **5** chapters of the national textbook on neurosurgery; he is an author and co-author of more than 20 reports and presentations at national and international neurosurgery conferences.

It makes a good impression that Assoc. Prof. Kehayov's scientific output is entirely related to various fields only in neurosurgery, without "imported" publications from other specialties that are beyond the scope of his competence.

There is a marked scientific interest in spinal surgery (27 publications), neuro-oncology (20 publications) and neurotraumatology (16 publications).

It is also worth noting the fact that some of the publications were developed due to cooperation with international scientific teams, and the results were published in prestigious international journals with an Impact Factor.

In the current contest, Assoc. Prof. Kehayov participates with **1** dissertation work, habilitation work in the form of **10** publications in Scopus and Web of Science, dealing with various aspects of spinal neuro-oncology, **31** publications in journals, indexed in Scopus and Web of Science, of which **22** with Impact Factor, **13** publications in non-refereed journals and scientific collections with scientific review, **1** neurosurgery textbook (under his editorship) and **5** chapters in collective books.

With scientific and practical contribution are his studies on the risk factors for the formation of spontaneous chronic subdural hematomas, the use of image-guided instrumentation on the spine with an O-arm spinal navigation system, as well as studies on spontaneous (primary and secondary) spinal epidural abscesses and the possibilities of applying telemedicine in the field of neurosurgery in Bulgaria, as well as his studies on the follow-up of cognitive disorders following surgical treatment of supratentorial brain tumors

I believe that the self-assessment of the candidate's scientific contributions is objective and adequate, and I definitely think that they enrich Bulgarian and global neurosurgical science.

Assoc. Prof. Kehayov is involved in two university research projects as he is the head of one of them, entitled "*Long-term follow-up of the morphological changes in cerebral white matter in patients following traumatic brain injury by means of Diffusion Tensor Imaging and their correlation with neurological functioning and quality of life*". The initial results of this project have been published in a specialized international neurotraumatology journal with impact factor - the Korean Journal of Neurotrauma.

Under the guidance of Assoc. Prof. Kehayov, two dissertations of Mihail Kalnev, MD, PhD and Georgi Apostolov, MD, PhD were successfully defended, as their doctoral studies were in the field of spinal neurotraumatology and neuro-oncology.

Currently, Assoc. Prof. Kehayov is the scientific supervisor of Polina Angelova, MD, who is developing a dissertation in the field of neurotraumatology.

The above-mentioned facts determine the well-deserved scientific authority of the candidate and his worthy positioning in the neurosurgical field.

III. EVALUATION OF MONOGRAPH OR EQUIVALENT PUBLICATIONS

In the current contest, Assoc. Prof. Kehayov presents a habilitation thesis in the form of **10** publications indexed in Scopus and Web of Science (**Publications №: 12, 14, 19, 36, 38, 41, 42, 43, 46 and 48 of applications in the documentation list**), concerning the clinical presentation, diagnosis, differential diagnosis and outcome of primary and secondary spinal cord tumors (extradural, intradural extramedullary and intramedullary). The information reflects the applicant's valuable personal surgical experience in this field, and the published results complement and enrich the existing world knowledge.

The total impact factor of the presented publications is **4.84**, and the total impact factor of their citations in world literature is **52.91**, which corresponds to a good response in the international neurosurgical scientific field.

IV. REFLECTION (CITATION) OF PUBLICATIONS IN NATIONAL AND FOREIGN LITERATURE

The current reference in international databases (Scopus, Web of Science, Pubmed, Google Scholar), as well as in the provided documentation, shows that the scientific works of Assoc. Prof. Kehayov has been cited in the literature **68** times in journals indexed in Scopus and/or Web of Science, **35** times in non-

indexed journals and **24** times in monographs, dissertations and collective books. The candidate's total IF from publications is **47,83**. The total impact factor from citations is **134.53**. According to **Scopus**, Assoc. Prof. Kehayov has ***h-index* = 5**, and according to **Google Scholar: *h-index* = 6; *i10-index* = 3**.

Given the relatively young age of the applicant and the analysis of citation trends in the electronic database for the last three years, these indicators are most likely to increase in the future, but even at the moment they exceed the requirements of MU-Plovdiv and are international recognition of Assoc. Prof. Kehayov as a scientist in the field of neurosurgery.

V. COMPLEX QUALITATIVE ASSESSMENT OF EDUCATIONAL AND TEACHING ACTIVITY

Assoc. Prof. Kehayov has over 12 years of teaching experience over 18 years of work experience as a neurosurgeon. He is the Head of the Department of Neurosurgery at MU-Plovdiv since 2020, during which time he also gained some administrative experience. He conducts a lecture course, tutorials and semester exams in neurosurgery for medical students in MU-Plovdiv in Bulgarian and English. As an associate professor of neurosurgery, he also participates in the training of trainee doctors, specialists and doctoral students. According to the provided report, the academic and teaching workload of Assoc. Prof. Kehayov for the last three years fully meets the requirements of MU-Plovdiv for the academic position held.

Assoc. Prof. Kehayov is the scientific supervisor of two successfully defended dissertations in the field of neurosurgery of Mihail Kalnev, MD, PhD and Georgi Apostolov, MD, PhD. Under his guidance, a third doctoral student is being prepared. He is the head of two residents, one of whom, Maria Gicheva, MD, has already acquired a specialty in neurosurgery.

The latest attestation grade of Assoc. Prof. Kehayov, presented by the committee for attestation of the academic staff at MU-Plovdiv, is "Good".

VI. REMARKS AND RECOMMENDATIONS

As a reviewer, I have no significant objections to the candidate. My recommendation to him is to continue to maintain a high standard of scientific production even after the conclusion of the current contest. He also remains responsible for the training of future specialists and doctoral students in neurosurgery at MU-Plovdiv.

VII. GENERAL ASSESSMENT OF THE SCIENTOMETRIC INDICATORS OF THE CANDIDATE

According to the table attached below for the required minimum and objectively fulfilled scientometric indicators by the candidate, it is evident that Assoc. Prof. Kehayov exceeds three times the required total amount of points for taking academic position "Professor" at MU-Plovdiv, fully meeting the requirements:

Табл. Scientific indicators of Assoc. Prof. Ivo I. Kehayov, MD, PhD

Metrics	Content	Professor	Indicators of Assoc. Prof. Kehayov, MD, PhD
A	Indicator 1	50	50
B	Indicators 3 and 4	100	140
C	Sum of indicators 5 to 9 (15 scientific publications, 10 in Scopus and Web of Science, 5 of which have IF)	250	616.7

D	Sum of indicators 10 to 12 (15 citations in Scopus and WoS)	300	1385
E	Sum of indicators 13 to the end (1 scientific project + acquired speciality)	140	198.3
F	Study load	200 p. Last 2 years. x 1 p. - 200 p.	1024
	Academic position	100 p. for each year.	600
TOTAL		1240 p.	4014 p.

VIII. CONCLUSION

The analysis of the scientific and educational and teaching activity of Assoc. Prof. Kehayov, Md, PhD shows that the candidate meets the minimal conditions stated in the Law on the development of the academic staff and the criteria for acquisition of academic position "Professor" of MU - Plovdiv, as well as the specific requirements of Medical University - Plovdiv for units with clinical activity, defined in the Regulations for Academic Development of the Medical University - Plovdiv.

Due to the above mentioned reasons, I find it fully justified to give my positive review and recommend to the honorable members of the scientific jury to prepare a report with a proposal for approval of the candidacy of Assoc. Prof. Ivo Kehaiov, MD, PhD for the position of academic position "PROFESSOR" in


the scientific specialty "Neurosurgery" for the needs of the Department of Neurosurgery of the MU - Plovdiv.

15.07.2024

Reviewer:

Заличено на основание
Чл.5 §1, б."В" Регламент (ЕС)2016/679

Sofia


Corr.- member Prof. Nikolay Gabrovsky, MD, DMSc