

STATEMENT

From Prof. Dr. Hristo Bogdanov Zhelyazkov, MD

Professor at the Department of Neurosurgery - MU - Plovdiv

Subject: Member of the scientific jury for the academic position of PROFESSOR in the scientific specialty of neurosurgery, professional field 7.1 Medicine at the Department of Neurosurgery and ENT Diseases, Section of Neurosurgery, the Faculty of Medicine of the Medical University "Prof. r Paraskev Stoyanov"- Varna according to order № P- 109-299 / 07.08.2020 of the Rector of MU Varna announced in SG no. 53 /12.06.2020

One candidate participates in the competition: **Assoc. Prof. Dr. Vasil Hristov Karakostov, MD.**

I ANALYSIS OF THE CAREER PROFILE OF THE CANDIDATE

1. Biographical data

Assoc. Prof. Karakostov was born on October 4, 1958. In 1982 he graduated with a master's degree in medicine from the Medical University "I. P. Pavlov"- Plovdiv. In the same year he started working as an intern at the District Hospital - Smolyan. In 1983 he was appointed as a clinical resident in the Clinic of Neurosurgery of Med. Academy - Sofia. In 1986 He acquired a specialty in neurosurgery and in the same year was appointed as a district neurosurgeon in Smolyan. Since 1988 he has been an assistant at the Neurosurgery Clinic of the Medical Academy - Sofia, where he still works. Since 2008 he has been Head of the Spinal Department, and since 2017 he has been Head of the Neurosurgery Clinic at St. Ivan Rilski University Hospital.

Assoc. Prof. Karakostov is a member of the Management Board of the Bulgarian Society of Neurosurgery; co-chairman of the Balkan Society of Spinal Surgery; He is a member of the Board of Neurosurgery of the Bulgarian Nuclear Surgery; External expert of the National Health Insurance Fund; He is a member of the editorial board of the journal Bulgarian Neurosurgery; Deputy Chairman of the Scientific Council of the University Hospital "St. Ivan Rilski „

Assoc. Prof. Karakostov is fluent in spoken and written English and Russian and spoken - German.

2. Academic development

In 1988 Assoc. Prof. Karakostov won a competition for "Assistant" at the Clinic of Neurosurgery - MA Sofia. Since since 1998 –has been a senior assistant. In 2004 he successfully defended his dissertation, with which he acquired ONS "Doctor", after which in 2007 after winning a competition he was elected to academic position "Associate Professor".

Assoc. Prof. Karaktostov holds a number of certificates for completed *specialized courses in the field of neurosurgery:*

- Medtronic International Course - Berlin, Germany - 2009; Leide, Netherlands, 2009; Russels, Belgium, 2011; Leipzig, Germany, 2009; London, United Kingdom, 2011; Barcelona, Spain, 2009; Brussels, Belgium, 2011, London, United Kingdom, 2011, Salzburg, Austria, 2008
- Spinal Microsurgery- Munich -2005q 2007
- Spine Experts Annual Meeting - Belgrade, Serbia, 2007; Bulgaria, 2008
- AOSpine, Contributors Course -Belgrade, Serbia, 2009; Zurich, Switzerland, 2009; Thessaloniki, Greece, 2009; and since 2014 he has a certificate for AOSpine Platinum Membership
- EACCME Course- Brussels, Belgium, 2011; Milan, Italy 2017
- Annual International Spinal Deformity Symposium (ISDS) Chicago, Illinois 2017
- Annual Spine Experts Group Meeting -Thessaloniki, Greece, 2005; Belgrade, Serbia -2007; Bulgaria -2008
- EANS Certificate Attendance - Lisboa, Portugal, 2003
- Annual Meeting Scoliosis Research Society- , Kyoto, Japan 2010
- 49th Annual Meeting Congress of Neurological Surgeons- , Boston, Massachusetts
- Spinal Microsurgery - Munich 2005, 2006
- International Symposium Microneurosurgical Anatomy- Antalya, Turkey
- European Workshop on Stereotactic Radiation Therapy and Whole Body Radiosurgery - Brussels, Belgium, 2010
- 3rd Annual International Spinal Deformity Symposium (ISDS)- Chicago, Illinois 2017
- Participation in international congresses and symposia in Turkey-2002, 2005 and 2004; Montenegro - 2002; Innsbruck-Austria -2004 and participation in 13 conferences and symposia in Bulgaria
- Certificates for work in an environment with ionizing radiation and for diagnostic and therapeutic actions in such an environment

II. DESCRIPTION OF THE PRESENTED MATERIALS AND EVALUATION OF THE SCIENTIFIC PAPERS FOR HIS ENTIRE ACADEMIC DEVELOPMENT

In the competition for acquiring the academic position "Professor", Assoc. Prof. Dr. Karakostov participated with a published *habilitation thesis monograph - Osteoporotic and pathological vertebral fractures. Percutaneous augmentation techniques. Published by "Multiprint" Ltd. Sofia 2019 p. 3-255. ISBN 978-619-188-335-6*

In this monograph the author for the first time in the Bulgarian scientific literature makes a synthesized analysis of the data on the incidence of osteoporosis and osteoporotic vertebral fractures in the world and compares it with that in Bulgaria on the basis of its rich clinical experience of 998 patients treated in the neurosurgery clinic of the University Hospital "St. Ivan Rilski" with percutaneous techniques for vertebral augmentation - vertebroplasty and kyphoplasty,

The total scientific production of Assoc. Prof. Dr. Vasil Karakostov includes 176 articles, full-text reports and abstracts, published in journals, collections and collections of abstracts of scientific events in Bulgaria and abroad.

The total actually published scientific production is **82 scientific papers**

1. Dissertation - "CT-based stereotactic interventions in brain processes", for the award of ONS "Doctor"

2. Co-author of 1 monograph - Marinov, MB, V. Karakostov. In the monograph: "Modern technological achievements in operative neurosurgery". ed. A. Karkeselyan,

3. Scientific papers and reports published in scientific journals - 79 -

- in referenced and indexed in a world database - 5

- in non-refereed journals, books and collections - 74

The scientific production of Assoc. Prof. Dr. Vasil Karakostov contains 25 scientific papers and reports published in English and 57 in Bulgarian.

DESCRIPTION OF THE PUBLICATIONS:

Total number of publications - 176 / after docent - 84 /

Total number of actual publications - 82 / after docent - 27 /

Scientific reports and presentations - 94 / after docent - 48 /

First author - in 8 publications

Second author - in 13 publications

Third and next author - in 61 publications

Total publication IMPACT FACTOR - 29.059

Citation - in Bulgaria - 37; abroad 81 / in Scopus - 37, in Web of knowledge - 31 and in other databases - 13 /

H INDEX of citations - 4

Participation in projects: *International projects:* 1. "The prognostic value of SCSEPs Changes during Intramedullary Surgery; 2." Clinical study of the drug "Temodal" in patients with glioblastoma multiforme. **3. National projects:** Vertebral disc surgery. Epidemiological data and operational problems.

Assoc. Prof. Karakostov is the supervisor of two successfully defended doctoral students.

The scientific contributions of the candidate are the following areas:

1. Diagnosis and treatment of osteoporosis - Main scientific contribution with the monograph based on vast clinical experience. The introduction of minimally

invasive percutaneous techniques of vertebral augmentation in pathological and osteoporotic vertebral fractures is of marked contribution.

2. Neurooncology - the studies on CNS tumors in childhood are of a contributing nature; on the informativeness of stereotactic localization and verification; on the clinical features and operative approaches in meningiomas in the cellular and paracellular areas; microsurgical treatment of small deep metastatic brain lesions; in the surgical treatment of pituitary adenomas where the team of Assoc. Prof. Karakostov has a leading position in the country;

3. Vascular diseases of the CNS - the main contribution of the candidate, in my opinion is the introduction into clinical practice of the methodology of CT-stereotactic localization of small and hard-to-reach cavernomas; in the surgical treatment of cerebral aneurysms and AV malformations; participates in a team that introduces and develops endovascular interventional surgery for cerebrovascular pathology. This team currently has a leading position in Bulgaria

4. Operative neurosurgery, new diagnostic and intraoperative methods and technologies - the main contribution here is in the intraoperative monitoring of evoked potentials in neurosurgery in the published monograph; contributions to minimally invasive microdiscectomy; a novelty is the development with the participation of the author of the frameless stereotaxy; of a contribution nature is the introduction of the so-called endoscopically assisted microneurosurgery and navigated neuroendoscopy; also applicable in the development of minimally invasive accesses to the cerebellar hemispheres

5. Degenerative spondylogenic diseases - a serious contribution are the author's publications on degenerative spondylogenic diseases; the methodology of the intradiscal "graft" prosthesis with "cage"; contributions to the application of percutaneous microdiscectomy and ipsi-contralateral technique in lumbar stenosis

6. Malformations of the CNS, hydrocephalus - of a contributing nature are the publications treating the diagnosis and surgical treatment of "normotensive hydrocephalus"; the introduction and use of endoscopic procedures and endoscopically assisted neurosurgical interventions and evaluation of the effectiveness of triventriculostomy

7. Epilepsy and functional neurosurgery - the stereotactic framework introduced by Assoc. Prof. Karakostov contributes to the application of deep brain stimulation in Bulgaria in 2013 which becomes a routine neurosurgical procedure. The methodology has been updated through the introduction of an MRI-based helmet. In 2008, as part of a team of authors, Assoc. Prof. Karakostov shared the initial experience of the introduction of awake craniotomy in three patients with epilepsy.

8. In neurotraumatology - publications dealing with the treatment of traumatic and spontaneous intratumoral hemorrhages - their frequency, clinical significance and prognosis

Evaluation of the scientific and creative achievements - I believe that with the presented scientific publications and the indicated contributions Assoc. Prof. Karakostov meets the obligatory scientometric criteria set in the Regulations of MU-Varna.

III. COMPLEX, QUALITATIVE EVALUATION OF THE TEACHER'S TEACHING-METHODICAL AND TEACHING ACTIVITY

Assoc. Prof. Karakostov has many years of experience and proven teaching qualities. He teaches to students of medicine and pharmacy, to specialists in neurosurgery, neurology, general and abdominal surgery, general medicine and to doctors studying spinal surgery. Participates in examination commissions of students of medicine and pharmacy in Bulgarian and English. Participates in the examination commission for the specialty of neurosurgery. The study load of Assoc. Prof. Karakostov is between 230 and 340 hours per year. He is an expert in assessment and accreditation of medical institutions. I believe that the teaching and teaching activities of the candidate fully meet all the requirements for the academic position of "professor" of neurosurgery.

IV. CONCLUSION:

Based on the materials submitted for the competition and referring to the Regulations of MU-Varna, I believe that the personal qualities of the candidate, the presented scientific production, his academic training and teaching activity meet the mandatory quantitative and qualitative criteria according to the rules of development of the academic staff at MU-Varna.

For these reasons, I find it completely reasonable to give a positive assessment and recommend to the scientific jury to vote positively for the election of Assoc. Prof. Vasil Hristov Karakostov, MD for the academic position of "Professor" of Neurosurgery at the Department of Neurosurgery and ENT. - Varna.

12.10.2020 Prof.

Prof. Hristo Zhelyazkov, MD

