

Review

From Prof. Dr. Borislav Dimitrov Kitov, dm
Chair of the Departments of Neurosurgery
Medical University Plovdiv

For the contest for the academic position „**Professor**” in the scientific area “**Neurosurgery**” in the Department of Neurosurgery of UMBALSM “Pirogov”, Sofia; published in “Darjaven vestnik”, Nr. 16/22.02.2019

According to Protocol Nr. NS-07-19/12.06.2019 and Order Nr. RD-26-1176/19.06.2019 of the executive director of UMBALSM “Pirogov” prof. A. Baltov, dm, I have been appointed as member of the Scientific Jury for the procedure of selecting of the academic position “Professor” in the area of high education 7. „Healthcare and sport”. Professional area 7.1. Medicine and the scientific specialty “Neurosurgery” for the needs of the Department of Neurosurgery - announced in DV No 16/22.02.2019. At the first session of the scientific Jury I have been appointed to prepare a review

In the contest there is one candidate: **Assoc. Prof. Venelin Miloslavov Gerganov, dm.** All necessary documents are prepared by the candidate and have been given to me as a printed copy and in electronic form, complying with the Law for the development of the academic staff in the Republic of Bulgaria (ZRASRB), The Decree to it and the Rule for the development of the academic staff of UMBALSM “Pirogov” EAD.

For the competition Assoc. Prof. Dr. Venelin Milsolvov Gerganov, dm, has provided a list of his scientific publications, presentations at scientific congresses and conferences, academic activity, list of his contributions, his diplomas for high education, board certificate in neurosurgery, diploma for “dm” degree, certificate of his appointment as “Associate professor” etc.

1. Short biographical data

Assoc. Prof. Dr. Venelin Gerganov has been born on the 19th of June 1970 in Sofia. In 1996 he graduated the Medical University – Sofia with excellent marks. In 2005 after successful presentation of his thesis on **“Surgical treatment of vestibular schwannomas”** he received the degree “Doctor” in the field “Neurosurgery”. In the same year he successfully passed the board examination for Neurosurgery. Since 2016 he is Master of “Public health and medical management” of MU Plovdiv.

Assoc. Prof. Dr. Venelin Gerganov started his professional carrier in CSMP in Radomir at the 01.01.1997- 30.09.1997. Afterwards he worked in the Section of Emergency Neurosurgery of UMBALSM “Pirogov” EOD. From 01.06.2001 to 01.01.2006 he worked in the Department of Neurosurgery of “Alexandrovska”- Sofia. From 01.02.2006 he started to work in the International Neuroscience Institute Hannover Germany, where in the period 2006-2008 he was Assistenzarzt. From 2008-2009 he is Funktionsoberarzt. From 2009 to 2014 he leads the section for intraoperative electrophysiological monitoring and is Oberarzt, and since 2014 he is Leitender Oberarzt.

Dr. Gerganov had performed long-term sub-specializations in Vienna, Austria (01.01.1999-30.12.1999), in Hannover, Germany (01.09.2003-30.12.2003 and 01.06.2005 – 30.06.2005) He received the fellowships of the Österreichischer Akademischer Austauschdienst, Vienna; of the Deutscher Akademischer Austauschdienst, Bonn; and the International Karl Storz Stipendium for clinical application of neuroendoscopy.

Assoc. Prof. Gerganov is a member of the European Association of the medical societies, of the Bulgarian and German Societies of Neurosurgery, of the German and European Society of Skull base Surgery and of the Association of the university lecturers in Germany. He is honorary member of the Southeast European Neurosurgical Society (SEENS) и Macedonian Neurosurgical Association.

From the aforementioned short biographical data it is obvious that the candidate possesses the necessary scientific and professional experience, related to the competition.

II. General characteristic of the activity of the candidate

The scientific interests of the candidate are mainly in the area of cerebellopontine angle lesions, tumors of the skull base, use of preoperative and intraoperative neuroimaging devices, utility of endoscopic surgery in various intracranial lesions.

For the competition for academic position “Professor” Assoc. Prof. Venelin Gerganov, dm, presents his published monograph “Surgery of cerebellopontine angle lesions”, which is indexed in Scopus and is published after his appointment as associate professor in 2012. The monograph corresponds to all academic criteria, is up-to-date and very useful. It contains 885 pages and 12 chapters and discusses the whole spectrum of cerebellopontine angle lesions. Their biological, histological and radiological features, neurological symptoms, diagnostic, methods of surgical treatment and subsequent care, have been presented in detail. The main focus is the surgical treatment, which is described in detail with multiple figures and intraoperative images, demonstrating various technical details. The monograph is extremely valuable source of information that presents detailed information on the pathology of this area and doubtless is helping the neurosurgeons to improve the results of the treatment of the lesions in the cerebellopontine angle. Proof for that is that it has been cited 32 times up to now.

Dr. Gerganov is coauthor of 31 chapters in textbooks and multi-author monographs, from which 12 are referred in recognized databases, such as Scopus and Web of Sciences.

In the part describing his scientific achievements and publications, the candidate presented 149 works, from which 116 are full-text (32 after his appointment as associate professor in 2012) in national and foreign journals with an overall Impact factor 136 and 33 published abstracts of presentations at scientific congresses, conferences and symposia in the country and abroad. The structure of Assoc. Prof. Venelin Gerganov's publications is: a/ dissertation – 1; b/ monograph – 1; c/ chapters in neurosurgical textbooks – 8; d/ chapters in multi-authored monographs – 23; e/ publications in international journals – 71, f/ publications in national journals – 13. From them 103 are in English language, 13 are in Bulgarian language. The participation

of the candidate in these scientific publications is as follows: first author – 29; second author – 52; third and later author – 25. In the presentations Assoc. Prof. Gerganov is first author 23 times, second author 5 times and third or more – 5 times.

III. Contributions of the scientific work and citations

Main focus of the scientific activity of Assoc. Prof. Gerganov are the cerebellopontine angle lesions – 39 publications (dissertation, monograph, publications in journals with Impact factor (Nrs. 1,5,8,9,11,17-19,24,26,29,32,35,36,39,43-46,48,49,52,53,55,58,60), published editorials and letters to the editor in journals with Impact factor (Nrs. 1,6,7) and journals without Impact factor (NRs. 3,5,6,9,10,15,16). All various types of lesions have been analyzed, including the prognostic factors, the advantages of the different operative approaches and the intraoperative techniques. These publications have been cited 1113 times and define dr. Gerganov as one of the most familiar experts in the topic worldwide.

Major attention has been given to the surgical treatment of one of the most complex neurosurgical diseases – the skull base tumors – 12 publications (journals with Impact factor (Nr. 3,6,16,20,40-42,51,56,59), published editorials and letters to the editor (Nr. 5) in journals with Impact factor (Nr. 17). In these publications Assoc. Prof. Gerganov evaluates the advantages and disadvantages of various approaches to tumors with different location and the possibilities to improve the outcome. These publications have been cited 424 times, which in itself speaks for the contributions of the author.

Assoc. Prof. Dr. Gerganov, dm, performs and publishes in Journal of Clinical Neuroscience and Journal of Neurosurgery one of the first prospective comparative studies of the intraoperative MRI and ultrasound in the surgery of brain gliomas (publications Nrs. 34, 47), which have been cited 120 times). The study showed that the MRI remains the golden standard for intraoperative imaging but the ultrasound is a cheaper and accessible alternative, which allows acquiring almost real-time reliable and accurate images. The remaining publications on the topic intraoperative imaging are publications 21,33,34 (26 citations).

Assoc. Prof. Dr. Gerganov is one of the pioneers in the world in the area of preoperative tractography of the cranial nerves and other important neural pathways, using the 3D MRI sequence. The method allows for preoperative mapping of these structures and helps their preservation during surgery – publications Nrs. 15 and 35, which have been cited 83 times.

Important part of the scientific work of Assoc. Prof. Gerganov is on the endoscope-assisted operative techniques of skull base tumors – their utility, benefits and drawbacks (publications 7,18,36,58,92). The endoscope-assisted approaches to the tumors of the jugular foramen (publication Nr. 7), trigeminal schwannomas (publications Nrs. 18 and 58), as well as the need of electrophysiological assessment of the safety of the endoscopic skull base surgery (publication Nr. 36). These articles have been cited 96 times.

Under the scientific guidance of Assoc. Prof. Dr. Gerganov two medical theses have been successfully presented: **“Peculiarities of the cystic vestibular schwannomas”** and **“Cerebellopontine angle epidermoids”**.

The scientific work of Assoc. Prof. Dr. Gerganov have been cited positively more than 2000 times; 1318 of them are in referred and indexed world-known databases, such as Scopus, where his h-index is 19. The overall Impact factor is over 136.

Assoc. Prof. Dr. Gerganov takes part in this competition as member of the Editorial boards of worldwide recognized journals, such as: Clinical Neurology and Neurosurgery; BioMed research International and Neurosurgery Journal; assistant Editor-in-Chief of Neurosurgical Review (2011-2016) and Associate Editor-in-Chief of International Neuroscience Journal. He has been reviewer in prestigious world journals, such as Neurosurgery, Neurosurgical Review, Clinical Neurology and Neurosurgery, Asian Journal of Neurosurgery, World Neurosurgery, J of Neurosurgical Sciences and other.

Due to the aforementioned, I believe that Assoc. Prof. Dr. Gerganov, dm, completely fulfills the obligatory scientific criteria, formulated in the ZRASRB and the Law of its application, as well as ch. 48 of the regulation for appointing scientific positions from the Order of the structure and function of UMBALSM “Pirogov” EOD Sofia (Table 1).

Table 1. Minimal score requirements, presented in groups for the AP “Professor”

Group of criteria	Content	Assoc. professor (score)	Professor (score)	Assoc. Prof. Dr. Gerganov (score)
A	Parameter 1	50	50	50
B	Parameter 2	-	-	-
C	Parameters 3 and 4	100	100	100
D	Suma of parameters 5 to 9	200	200	>3000
D*	First author	10	20	23
E	Suma of parameters 10 to 12	50	200	>19000**
F	Suma of parameters 13 to the last	-	100	150 ***
IF	Publications in journals with IF	>5	>10	59

*Assoc. Prof. Gerganov has published 11 chapters in multi-authored textbooks indexed in Scopus, that are not reflected here. **These are 1318 citations only in Scopus. ***Reflects the board certification, the guide of 2 successful “Doctor” theses and education of residents and doctorands.

IV. Evaluation of the academic activity

The academic activity of Assoc. Prof. Dr. Gerganov, dm, begins as a lecturer in the free-chosen course “Specific neurological and neurosurgical clinical pictures and problems”, Seminars, Faculty of natural sciences, University of Magdeburg. Later on, he lectures “Neurosurgery and functional anatomy”, “ENT symptoms in case of neurosurgical diseases” and “General neurosurgery- basics” In the Departments of Anatomy, ENT and Neurosurgery in the Medical High School of Hannover. Since 2013 he is faculty member of the PhD program between INI-Hannover and Tehran University of Medical Sciences.

The lecture activity, both as hours and duration, as well as the experience of the candidate, fulfill all requirements for the academic position “Professor” of neurosurgery.

V. Conclusion

The review of the provided documents and materials convinced me that all requirements of the ZRASRB, The Law to it and the Order for the development of the academic staff of UMBALSM "Pirogov" EAD are fulfilled. The candidate presented sufficient number of scientific publications, which include extremely original scientific and practical contributions that already achieved world recognition. The scientific and academic qualification of Assoc. Prof. Dr. Gerganov is convincing and fulfills the specific requirements for becoming the academic position "Professor" not only in UMBLSM "Pirogov" EAD but also in the most prestigious medical universities.

Therefore I find it reasonable to give my positive vote and recommend to the honorable members of the Scientific Jury to vote also positively for Assoc. Prof. Dr. Venelin Miloslavov Gerganov, dm, to become the academic position "Professor" in the area of high education 7. „Healthcare and sport“. Professional area 7.1. Medicine and the scientific specialty "Neurosurgery" for the needs of the Department of Neurosurgery of UMBALSM "Pirogov" EAD – Sofia - announced in DV No 16/22.02.2019 and wish him success.

10.07.2019
Plovdiv

Reviewer: Prof. Dr. B. Kitov, dm