

## **Review**

For the position „Professor in Neurosurgery“, for the needs of the Department of Neurosurgery of UMBALSM “Pirogov”, Sofia; professional subtype 7.1. „Medicine“ in the field High education 7. „Healthcare and sport“

The competition is according to No RD-26-1176/19.06.2019 of the executive director of UMBALSM “Pirogov” and was announced in DV No 16/22.02.2019

### **Candidate:**

Assoc. Prof. Dr. Venelin Milsolvov Gerganov, DM, neurosurgeon in the Department of Neurosurgery of UMBALSM “Pirogov”, Sofia

**Reviewer:** Prof. Dr. Nikolai Stefanov Gabrovski, DMN, head of the Department of Neurosurgery of UMBALSM “Pirogov”, Sofia; chief coordinator of the Expert committee of Neurosurgery in the MC. President of the Bulgarian Society of Neurosurgery

Assoc. Prof. Dr. Venelin Gerganov has been born on the 19<sup>th</sup> of June 1970 in Sofia. He graduated medicine in the Medical academy of Sofia with excellent marks. He worked for a period of 9 months as an emergency physician at the CSNP, Radomir. Since October until may 2011 he was resident in the Section of Emergency Neurosurgery, UMBALSM “Pirogov”. In the period June 2001 - January 2006 he worked at the Department of Neurosurgery of the UMBAL “Alexandrovska”, Sofia, later – of UMBAL “Sv. I. Rilski”.

Assoc. Prof. Dr. Venelin Gerganov was board certified in January 2005. In June 2005 he successfully presented his Doctor work “Surgical treatment of vestibular schwannomas” under Prof. Dr. Kiril Romanski and achieved the educational and scientific grade “Doctor”.

After January 2006 he began to work at the International Neuroscience Institute in Hannover, Germany, where he was consequentially Assistentarzt (2006-2008),

Funktionsoberarzt (2008-2009), Chief of section intraoperative neuromonitoring (2009-2014), Oberarzt (2009-2014) and Leitender Oberarzt since 2014.

Dr. Venelin Gerganov is Associate Professor of neurosurgery in the Medical University of Hannover since 2012. The procedure for his full professorship in that University was opened in April 2017.

Since May 2018 Assoc. Prof. Venelin Gerganov is working half-time in the Department of Neurosurgery of UMBALSM "Pirogov".

Assoc. Prof. Venelin Gerganov has multiple sub-specializations: in Vienna, Austria, in Germany, etc. He was granted with several research fellowships: of the Österreichischer Akademischer Austauschdienst, Vienna; 2003; of the Deutscher Akademischer Austauschdienst, Bonn; and in 2006-2008: the International Karl Storz Stipendium for clinical application of neuroendoscopy.

He received the price of the European Skull Base Association at the 6th International Congress of the World Federation of Skull Base Societies and 10th European Skull Base Society Congress in Brighton, UK, 16-19.05.2012.

Assoc. Prof. Venelin Gerganov is Associate Editor-in-chief of the International Neuroscience Journal and served as Assistant Editor-in-chief of Neurosurgical Review (2011-2016). He is member of the Editorial board of Clinical Neurology and Neurosurgery and BioMed Research International. He is reviewer in the leading neurosurgical journals Neurosurgery, Neurosurgical Review, Journal of Neuroimaging, Neuroscience, Clinical Neurology and Neurosurgery, World Journal of Surgical Oncology, Journal of Neurological Surgery, World Neurosurgery etc.

The academic activity of Assoc. Prof. Venelin Gerganov comprises:

- Lecturer in the free-chosen course "Specific neurological and neurosurgical clinical pictures and problems", Faculty of natural sciences, University of Magdeburg, 4 semesters (2008-2010)
- Lecturer in the free-chosen course "Neurosurgery and functional anatomy", Medical High School- Hannover, Department of Anatomy; 2 semesters (2009)
- Lecturer in the ENT course "ENT symptoms in case of neurosurgical diseases", Medical High School- Hannover, Department of ENT (2011-2013)

- Faculty member, PhD program INI-Hannover and University of Medical Sciences, Tehran since 2013
- Lecturer in the free-chosen course “ General neurosurgery- basics”, Medical High School- Hannover, Department of Neurosurgery - since 2010

Assoc. Prof. Venelin Gerganov has been Doktorfather of 3 doktorands in INI-Hannover, two of whom have already successfully presented their thesis for the educational and scientific grade “Doctor”.

Assoc. Prof. Venelin Gerganov is a member of the following medical and scientific organizations: European Association of the Neurosurgical Societies, International Society of Neurosurgery Madjid Samii, Young neurosurgeons Forum of the WFNS (2005-2008), German Society of Neurosurgery, Bulgarian Society of Neurosurgery, European Society of Skullbase Surgery, German Society of Skull Base Surgery, Association of the university lecturers in Germany, German Society of Neuromodulation. Honorary member of the Southeast European Neurosurgical Society (SEENS) и Macedonian Neurosurgical Association.

For the present competition Assoc. Prof. Venelin Gerganov presented the following scientific works:

- 1 monograph
- 31 chapters of textbooks or monographs
- 60 publications in journals with impact factor, indexed in PubMed
- 17 publications in journals without impact factor
- 7 published letters tot he editor in journals with impact factor
- 30 published comments in journals with impact factors, indexed in PubMed
- Presentations: 33 presentations at neurosurgical congresses with published abstracts; 38 presentations at neurosurgical congresses without published abstracts; 34 invited lectures

Scientific parameters

- overall citations: 2035 (Google scholar)
- sum impact factors: 137
- A-index: 25 (Google scholar)
- I-10 index: 44 (Google scholar)

Assoc. Prof. Venelin Gerganov published the monograph "Surgery of cerebellopontine lesions" after his nomination as associate professor. The book is indexed in Scopus. It corresponds to the highest scientific and professional criteria and is a considerable, academic, genuine, up-to-date and comprehensive work. It consists of 885 pages and 12 chapters. Without doubt, it can be regarded as a very important scientific work that summarizes the neurosurgical knowledge of the pathological changes in a very delicate and challenging area of the brain.

Assoc. Prof. Venelin Gerganov is co-author of 31 chapters in textbooks and monographs; 12 of them are indexed in world recognized worldwide databases, such as Scopus and Web of science. Of his 116 full text publications, he is first author in 29 and second- in 52.

Main focus of the scientific work of Assoc. Prof. Venelin Gerganov are the cerebellopontine angle lesions – 39 publications. In them all aspects all aspects of the diseases with this location are analyzed and due to their comprehensiveness and resourcefulness are main source of information for everybody, who has to deal with such diseases. Considering the impressively high level of these publications, the objective scientific parameters and the number of citations, Assoc. Prof. Venelin Gerganov can be defined as one of the leading experts in the area worldwide.

In this regard an important contribution is his investigation of the DTI based tractography of the facial and cochlear nerves preoperatively and its correlation with the intraoperative findings in order to verify the accuracy of the method (publication 35; 79 citations). This is one of the first successful tractographic reconstructions of these nerves in the world.

We have to mention also the contribution of the description of the endoscope-assisted intradural suprameatal approach for the treatment of trigeminal schwannomas (publication 18) and the endoscope-assisted microsurgery of vestibular schwannomas (publication 58).

The second major area of the research activity of Assoc. Prof. Venelin Gerganov is the surgery of skullbase tumors – 12 publications. This is also a challenging topic; several

major contributions could be outlined here: the assessment of the benefits and limitations of some novel approaches to these tumors, as well as the possibility to improve the outcome (publications 5,12,16,20; 76 citations); endoscope-assisted surgery of the skullbase tumors- use, advantages, disadvantages (publications 7,,18,36,58; 92 citations); endoscope-assisted retrosigmoid infralabyrinthine approach to the foramen jugulare tumors (publication 7) and the electrophysiological assessment of the safety of the endoscopic surgery of the skull base (publication 36).

The third area of his research interests is the evaluation of the new high technological intraoperative imaging methods (intraoperative MRI and ultrasound). The findings are presented in a first publication worldwide of a prospective comparative study of the intraop MRI and ultrasound in the surgery of brain gliomas (published in J Neurosurgery; publication 47; 65 citations). The findings of this 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 main limitation of the ultrasound is the lower specificity of the images when attempting to assess for small tumor remnants. The remaining publications on the topic are Ns. 21,33,34; 75 citations).

It has to be highlighted that the scientific achievements and contributions of Assoc. Prof. Venelin Gerganov are unprecedented in the modern Bulgarian neurosurgery. They are an evidence for extensive and consecutive efforts over many years, big talent and are a proof that world-recognized experts can develop in Bulgaria. This is exemplary of the deep historical significance of our “opening” to the so-called western scientific societies.

As conclusion, I can say that the scientific achievements of the candidate and the documents that he provided correspond and even exceed the requirements formulated in the Law for the development of the academic staff in the Republic of Bulgaria and in the Rules of UMBALSM “Pirogov”. They are the reason for my positive vote for him to acquire the title “Professor” for the needs of the Department of Neurosurgery of UMBALSM “Pirogov”, Sofia.

04.08.2019  
Sofia

Prof. Dr. Nikolay Gabrovski, dmn