

## SHORT REVIEW

*On:* Competition for the occupation of the academic position "Associate Professor" in the area of higher education 7. Healthcare and Sport, professional field 7.1. Medicine, scientific specialty "Orthopedics and traumatology – Bone and Joint infections", announced by Sofia University "St. Kliment Ohridski", in the State Gazette, number 22/16.03.2021.

*by* Assistant Prof. Antonina Todorova Gegova, MD, PhD, Faculty of Medicine of Sofia University "St. Kliment Ohridski"

### ***Information on the competition procedure***

The competition for the occupation of the academic position "Associate Professor" in the professional field 7.1. Medicine (Orthopedics and Traumatology – Bone and Joint Infections - one) is announced for the needs of the Department "Surgery, Obstetrics and Gynaecology" in the Medical Faculty of SU "St. Kliment Ohridski".

The competition announcement was published in State Gazette, number 22/16.03.2021. The composition of the Scientific Jury was determined by the Order of the Rector No. RD-38-227 of 14.05.2021 on the grounds of decision of the Faculty Council of Faculty of Medicine (Protocol No. 87/12.05.2021).

One candidate participates in the competition: Chief Assistant Yavor Georgiev Grigorov, MD, PhD,

The short review was prepared in accordance with the Law on Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Rules for the Implementation of the LDASRB and Section IV (Terms and Conditions for Occupation of the Academic Position "Associate Professor") of the Rules for the Conditions and Procedure for Acquiring Degrees and Occupation of Academic Positions at Sofia University "St. Kliment Ohridski".

The regulatory requirements for the competition procedure have been met.

The applicant's documents are in full compliance with the regulative requirements for admission and participation in competition for the occupation of

academic position "Associate Professor" at Sofia University "St. Kliment Ohridski". They are presented in sequence from No. 1 to No. 18 and include supporting evidence: Curriculum vitae; Higher education diploma; Diploma for educational and scientific degree "Doctor" in Orthopedics and Traumatology Diploma for educational and scientific degree "Doctor"; Document for scientific title or academic position; Certificate for work experience in the specialty; Documents proving the fulfilment of the requirements under art.105, para 1, item 2; Medical certificate certifying mental and physical health, as well as Certificate of criminal record certifying the absence of a imposed penalty "deprivation of the right to practice a certain profession or activity" are not presented, due to the fact, according to the regulations, that currently Dr. Yavor Grigorov has an employment contract at Sofia University "St. Kliment Ohridski"; List of publications, inventions and other applied research results, including: a ) list of all publications, b ) list of publications submitted for participation in the competition; List of publications, conferences, projects and scientific manuals, generated by the system "Authors", due to the fact that the candidate holds an academic position at Sofia University "St. Kliment Ohridski"; Reference according to the form for meeting the national minimum requirements for the relevant scientific area and the additional requirements of Sofia University "St. Kliment Ohridski" with evidence attached to it, including the acquired specialty in "Orthopedics and Traumatology" and "Sports Medicine"; References of the citations with a complete bibliographic description of the cited and cited publications; Information on the original scientific contributions, with the attached relevant evidence; Information on the indicators under Art. 112, para. 2, item 5 with the relevant evidence; Scientific papers submitted for participation in the competition, structured and numbered according to the list under item 10 b; Abstracts of the peer-reviewed publications in Bulgarian and in one of the languages traditionally used in the respective scientific field (in English); Copy of the announcement in the State Gazette.

#### ***Applicant's curriculum vitae and academic development***

Chief Assistant Yavor Georgiev Grigorov, MD, PhD was born in 1960 in Burgas as a hereditary physician. He graduated from the Naval School in his

hometown, where he received his secondary education and completed his regular service in the Navy. From 1980 to 1986 he was a student at the Medical University – Varna (Diploma 001147, Reg. No 3714/ 26.10.1986 r.). During his studies he was a member, and in the last year - chairman of the circle of Orthopedics and Traumatology at the clinic of the same name.

Dr. Yavor Grigorov's career began as head of the rural health service in Obzor, where he worked between 1986 and 1989. From 1989 to 1991 he was an intern at the Clinic of Orthopedics and Traumatology in Burgas. In 1991 he started working at the Second Clinic of Orthopedics and Traumatology of the Pirogov Institute. From 1993 to 1998 he was an intern at the Clinic of Orthopedics, Traumatology and Plastic Surgery at the Institute for the Treatment of Foreign Citizens - Sofia (St. Anna University Hospital). In 1998 he started working at the University Hospital in Sabrata - Libya, as head of the Department of Orthopedics and Traumatology at the Surgical Clinic and was a consultant at the National Oncology Institute in the same city until 2009.

In 2010 he successfully defended a dissertation dedicated to bone infections and obtained the educational and scientific degree "Doctor" in Orthopedics and Traumatology before the Higher Attestation Commission (Diploma No 34990/11.02.2011).

In January 2011 he started working at the Clinic of Orthopedics and Traumatology at Lozenets University Hospital, Sofia, successively as an intern, part-time and chief assistant.

During his career Dr. Grigorov acquired the following qualifications: specialty in Sports Medicine at the Faculty of Social Professions (FOP) - 1985; specialty in Journalism at the Faculty of Social Professions (FOP) – 1985; specialty in Orthopedics and Traumatology - 1993; course in Spinal Surgery - 1994; course in Joint Endoprosthesis - 2012.

He is a member of four scientific organizations: BMA, BOTA, the Union of Scientists in Bulgaria, the Bulgarian Society of Dermatological Surgery, of which he is also a founder. Dr. Grigorov has two sons. He is fluent in English, Russian and speaks Arabic.

### *Scientific research and scientometric data*

The applicant's scientometric data are in full compliance with the criteria and indicators recommended in the regulations for evaluation by the Scientific Jury at conducting a competition for "Associate Professor". The scientific papers submitted for review are from the field of higher education 7. Health care and sports, professional field 7.1 "Medicine", scientific specialty "Orthopedics and traumatology".

Dr. Grigorov is the author and co-author of a total of 62 scientific papers with indisputable scientific and applied and fundamental contributory character. The number of published scientific papers is 31 and the number of scientific papers reported – 31. too. The applicant is the sole author of one monograph.

The list of publications submitted for participation in the competition includes: 1. *Dissertation* for the award of educational and scientific degree "Doctor" in "Orthopedics and Traumatology": Bone infections - epidemiology and treatment (eleven-year study - 1998 - 2009 in the region of North Africa), with supervisor: Prof. Diko Boshnakov, MD, PhD, DMSc; 2. *Monograph*: "Osteomyelitis", Kronos Publishing House, Sofia 2019; 3. *The scientific papers* submitted for participation in this competition are 52. The number of published scientific papers is 27 (including - 5 in publications referenced and indexed in world-famous databases with scientific information and 22 in non-refereed journals with scientific review) and the number of scientific papers reported – 25; **3.a. The analysis of the publications (27) includes:** bone and joint infections - 8, benign tumors - 5, malignant tumors - 11, degenerative diseases - 1, neurological diseases - 1, congenital malformations - 1. In 21 (77.78%) of the presented 27, Dr. Grigorov is the first author; in 2 (7.40%) – second, and (14.81%) third and next 0 – in 4; **3.b. The reports presented at scientific forums (25)** submitted for participation in the competition are 25, the analysis of which includes: bone and joint infections - 8, benign tumors - 3, malignant tumors - 10, trauma - 1, degenerative diseases - 1, neurological diseases - 1, congenital malformations - 1.

Citations: According to the information provided by CML, MU-Sofia in the Scopus database are found 9 citations; in Web of knowledge - 6 citations; in Bulgarian sources are found - 2 citations; in other foreign databases - 4 citations. According to a reference from NACID - 13 citations were found in the databases Scopus, Web of Science and other databases.

The journals' IF, where there are citations, is 13.2; The SJR is 6.049. According to NACID reports, the SJR value for publications is 0.764.

**Scientific contributions:** The most significant contributions from the scientific work of Dr. Grigorov are detailed in the enclosed documents of the competition "Author's reference to the contribution nature of scientific works". They are the result of studies in the basic scientific fields listed above, and are very well substantiated and accurately reasoned with evidence. They relate mainly to the following more significant stages of the applicant's scientific development:

**1. PhD Dissertation work** for the obtaining the educational and scientific degree "Doctor" in "Orthopedics and traumatology": Bone Infections - Epidemiology and Treatment (eleven-year study 1998 - 2009 in the region of North Africa)", with supervisor Prof. Diko Boshnakov, MD, PhD, DMSc, and official reviewers Prof. Borislav Vladimirov, MD, PhD, DMSc and Prof. Ivan Poromanski, MD, PhD is dedicated to an extremely current and important topic. It is written on 133 pages and contains 100 figures, 16 graphs and 17 tables. The literature reference was made on 275 publications, of which 246 in Latin and 29 in Cyrillic. The scientific contributions of the dissertation work include: 1. Own classification of bone infections has been developed; 2. Based on the classification, a universal algorithm of surgical behavior has been developed; 3. Modified Papineau's operative method for the treatment of extensive bone infections, with long evolution, near large joints; 4. Rehabilitation of femoral osteomyelitis has been reported for the first time, over 34 years of age; 5. An epidemiological study of bone infections has been carried out for the first time in this geographical area; 6. The probable causes of the high frequency of septic complications, namely nosocomial infections, have been clarified.

**2. Monographic work:** "Osteomyelitis", Publishing House "Kronos" Sofia, 2019, annotation by Prof. Diko Boshnakov, MD, PhD, DMSc. Severe injuries in recent years, leading to serious damage to the limbs, as well as the use of extensive implants, are a prerequisite for the occurrence of bone infections. Their surgical treatment continues to be a challenge in modern medicine. This determines the relevance and practical significance of the presented monograph "Osteomyelitis", published after more than 33 years of medical practice, as more than 20 devoted to bone and joint infections, including 11 abroad - North Africa. The scientific work contains 12 chapters, presented in 152 pages and illustrated with 86 figures, 17 tables, 4 graphs. Extensive material on the topic has been reviewed, as the bibliography contains 504 titles (40% of the last 2-3 years). After an extensive historical overview, the monograph presents the latest data on the epidemiology, etiology, localization and pathogenesis of bone infections. The most modern methods for early diagnosis and conservative treatment of osteomyelitis are presented. The original algorithm of surgical treatment has been further developed on the basis of a further developed own classification of bone infections, by clearly differentiating the main of the auxiliary treatment methods and combining them for each specific case. According to the annotation of Prof. Diko Boshnakov, MD, PhD, DMSc the presented general material, as well as the author's own experience, are an invaluable practical aid for the specialists working in purulent-septic surgery.

### **3. Other scientific works of the candidate**

A total of 31 *scientific publications* were presented (including 5 in publications referenced and indexed in world-famous databases with scientific information) and 26 in non-refereed journals with scientific review), of which 27 for participation in the current competition. In connection with the dissertation, earlier, 4 scientific publications were presented. With his inherent initiative and energy Dr. Ya. Grigorov is the first author in 25 of all 31 publications or 80.65%. In 3 he is second (9.68%) and in 3 (9.68%) - third or next author. Of all 31 scientific publications, 12 (38.7%) are devoted to bone and joint infections, 11 (35.48%) to malignant tumors, 5 (16.13%) to benign tumors, 1 (3.23%) - to degenerative disease, 1 (3.23%) of neurological disease, 1 (3.23%) congenital disease. The unique cases described in the scientific publications

include - synovial lipomatosis of the foot, successfully treated bone infections of the femur, respectively 20 and 34 years old. Cases of operated patients with extremely rare diseases and localizations are described, which include - the second largest femoral liposarcoma in the world, amputation of the shoulder girdle - clavicle scapula and upper limb (performed for the second time in Bulgaria), as well as rare cases of femoral liposarcomas, chondrosarcoma of the tibia, a patient with clavicular fibrosarcoma appeared 30 years after radiotherapy for breast cancer, successfully treated by claviclectomy, Ewing's sarcoma localized in the clavicle, one-stage femoral reamputation for femoral osteomyelitis, dorsal scapular exostole;

**Participation in scientific forums:** Dr. Grigorov has presented a total of 31 papers at scientific conferences (6 of them are in connection with the dissertation), in Bulgaria and abroad.

**Publications in collections of abstracts:** Dr. Grigorov has 4 publications in collections of abstracts, including - 2 at international forums, one abroad - dedicated to bone tumors, 1 dedicated to bone and joint infections, 1 dedicated to stimulating bone adhesion and 1 dedicated to congenital anomalies, the last two being awarded first and second prizes at the scientific sessions of TNTM (technical and scientific creativity of the youth).

The comparative analysis made of the *minimum national requirements* under Art. 2b from LDASRB for the scientific field 7. Healthcare and sports, professional field 7.1. Medicine with the attached reference to the real points of Dr. Grigorov shows that Dr. Grigorov **meets the minimum national requirements for occupying the academic position of "Associate Professor"**. The detailed analysis of the relevant groups of indicators A/A, B/Б, C/С, D/Д, E/Е, F/Е of Dr. Grigorov proves the following: Indicators A (50), B (0) and C (100) meet the national requirements. Indicator D is 230.98 at a minimum requirement of 200. Indicator E is 155.00 at a minimum requirement of 50. Indicator F is 125.00 with a minimum required value of 0. The total number of points of Dr. Grigorov is 660.98 with the minimum number as a national requirement for the academic position of "Associate Professor" being 400. By group of indicators (D, E and F), **Dr. Grigorov's values exceed the national minimum requirements.**

### *Teaching and learning activities*

Dr. Yavor Grigorov is a lecturer at the Medical Faculty of Sofia University "St. Kliment Ohridski" in the discipline "Orthopedics and Traumatology" for 10 years, the last 9 of them he is a chief assistant. To date, with his inherent energy and dedication, Dr. Grigorov has more than 2133 hours (classroom and extracurricular employment), with Bulgarian and English-speaking students in the master's program, for the specialty "Medicine", as well as with students in the bachelor's program, in the specialty "Medical Rehabilitation and Occupational Therapy". He led a specialization in orthopedics and traumatology, was a mentor in the project "Student Internships" for training students from Sofia University "St. Kliment Ohridski", co-financed by the European Union, in the period 13.06.2013 - 30.04.2015, as well as a reviewer of a diploma thesis for obtaining a Master's degree (2015).

### *Clinical activity and other professional activities*

Dr. Grigorov is a highly qualified orthopaedist. He has performed over 1000 operative interventions and thousands of consultative examinations at Lozenets Hospital. Dr. Grigorov has several scientific awards. For his eleven years of activity, Dr. Yavor Grigorov was awarded a Certificate of Honor for excellent work by the management of the University Hospital in Sabrata. During his stay in Libya he performed over 2,300 surgeries interventions. Dr. Grigorov has participated in editorial boards of five medical journals.

### *Conclusion*

Chief Assistant Yavor Georgiev Grigorov, MD, PhD participating in the competition for the academic position "Associate Professor" fully complies with the regulatory requirements of LDASRB and the Rules for the Conditions and Procedure for Acquiring Degrees and Occupation of Academic Positions at Sofia University "St. Kliment Ohridski". He is a highly qualified, erudite doctor, with significant scientific creativity and original contributions in his field. Dr. Grigorov shows diligence, perseverance in his scientific, clinical and teaching activities. The original scientific results obtained by Dr. Grigorov have a fundamental and scientifically applied




contribution character. Dr. Grigorov's scientometric data exceed the minimum national requirements, normative criteria and indicators for evaluation of the candidates during the competition for the academic position "Associate Professor".

The complex evaluation of his documents and activity gives me a ground for a positive opinion, therefore, with complete conviction, I propose to the honourable members of the Scientific Jury to decide on the election of Chief Assistant Yavor Georgiev Grigorov, MD, PhD for Associate Professor in professional field: 7.1 Medicine (Orthopedics and Traumatology) and occupation of this academic position at the Faculty of Medicine of Sofia University "St. Kliment Ohridski".

July, 8<sup>th</sup> 2021

Sofia

A member of the Scientific Jury:.....

(Assistant Prof. Antonina Todorova Gegova, MD, PhD)