

REVIEW

by Prof. Dr. Dora Konstantinova Zlatareva, PhD
Head of the Department of Imaging,
Medical University of Sofia
External member of the Scientific Jury
determined by Order No. ПД-38-277/29.5.2023
of the Rector of SU St Kliment Ohridski

Of competition for academic position “Professor” Professional direction **7.1. "Medicine" (Diagnostic Imaging)** for the needs of the Medical Faculty of Sofia University "St. Kliment Ohridski", Department of Physics, Biophysics and Radiology, announced in the State Gazette No. 35 of 18.04.2023

One candidate took part in the competition: Assoc. Prof. Georgi Vassilev Hadjidekov, MD from Sofia University „Kliment Ohridski”, Medical Faculty, Department of Physics, Biophysics and Radiology.

I. General presentation of the procedure and the applicant

The set of materials submitted by the candidate on electronic media is in compliance with the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation and the requirements under the Regulations for the Conditions and Procedures for the Acquisition of Academic Degrees and Academic Positions of the University of “St. Kliment Ohridski”, and includes the required documents. The applicant has described logically the contributions of the scientific works, and has provided the data on the indicators of the minimum national requirements for the respective position.

Biography and career development

Assoc. Prof. Dr. Georgi Vassilev Hadjidekov, MD was born on 8.6.1976 in Sofia. In 1994 he graduated from the French Language School, Sofia. He graduated from the Medical Faculty of the Medical University of Sofia in 2000. During his studies and after his graduation he had practical training in various clinics in Bulgaria, Spain and France. Since 2007 he has a recognized specialty in imaging diagnostics. In 2012 he obtained his PhD in the professional field In 2012 he obtained his PhD in the professional field 7.1. Medicine (Medical Imaging, Medical Radiology and Radiology, including the use of radioisotopes) for thesis "Magnetic resonance urography in childhood". He completed his MSc in Health Management in 2014. The candidate has participated in a number of national and international postgraduate qualifications in cardiovascular radiology, abdominal and genitourinary radiology, paediatric imaging, etc.

Since 2002 he has been working as a doctor in the department of imaging diagnostics at the University Hospital "Lozenets". He is a lecturer at the University of St. He has been teaching at the Medical Faculty, Department of Physics, Biophysics and Radiology. For the period 2007-2013 he was assistant professor and principal assistant professor, and since 2013 "associate professor" in professional field 7.1. Medicine (Imaging, Medical Radiology and Radiology, including the use of radioisotopes). The candidate trains Bulgarian and foreign medical students, kinesiotherapy students and nurses, and in addition to the lecture course also carries out practical exercises.

Assoc. Hadjidekov is fluent in English, French and Russian.

He is a member of various professional organizations: the Bulgarian Association of Radiology BAR, European Society of Radiology ESR, European Society of Urogenital Radiology (ESUR) European Society of Pediatric Radiology (ESPR) European Society of GastroAbdominal Radiology (ESGAR) American Roentgen Ray Society (ARRS). He actively participates in national and international courses, congresses and conferences presenting his research results. He is the author of monographs and over 200 publications in scientific periodicals in Bulgaria and abroad.

II. Evaluation of the quantitative and qualitative indicators of scientific research and applied activities

The number and type of publications submitted for review meet the requirements of the regulations of the Ministry of Education, St. Kliment Ohridski" for the position of AD "PROFESSOR". One dissertation with an abstract is submitted. The total number of scientific works is 233, 59 of them are after holding the academic position "Associate Professor", 9 of them with IF, 38 publications in international and national refereed journals, 18 publications in non-refereed journals, 2 contributions to textbooks/monographs, 1 contribution to a university textbook, 45 contributions to national and international congresses and conferences.

The candidate's scientific works have been published in various reputed journals such as Acta Radiologica Open, Diagnostics, Journal of Technical Research and Applications, International Journal of Gynecology, Obstetrics and Neonatal Care, International Journal of Science and Research, etc.

Distribution of the scientific works of Assoc. Hadjidekov for participation in the competition:

Total number of scientific papers	233
Number of fully published scientific papers after "Associate Professor"	59
Publications in scientific journals with IF	9
Publications in international and Bulgarian journals refereed and indexed in world-renowned databases with scientific information after "Associate Professor"	38
Publications in non-refereed peer-reviewed journals	18
Chapters from collective monographs	2
Published university textbook	1
Participation in international and national scientific forums	45

Science metrics

Groups of indicators	points
A	50
Б	
B	189
Г	682.20
Д	2040
E	138.33
Total points	3099,53

Assoc. Prof. Dr. Georgi Hadjidekov fully **meets and exceeds the minimum national requirements and the minimum requirements of the Medical Faculty, Sofia University St. Kliment Ohridski** for the Academic position "Professor" in the group of indicators – **A, B, Г, Д and E**. The candidate has participated in 3 research and training projects. One PhD student under his supervision has successfully defended his PhD in 2021.

The research activity of Assoc. Prof. Hadjidekov is in several areas of imaging diagnostics.

1. **Diagnostic imaging of the female reproductive system.** The contribution of 3 Tesla magnetic resonance imaging to uterine myomas is reviewed, and an optimal protocol for examination is outlined and clinical-imaging parallels are drawn. For the first time in Bulgaria, the contribution of 3T MRI to space-occupying processes in the adnexa, their classification and preoperative evaluation is presented. Some of the papers are devoted to congenital anomalies of the uterus according to the newest classification. The magnetic resonance characteristics of ovarian teratomas and the specificity of magnetic resonance imaging in dermoid cysts, immature teratomas and monodermal teratomas are described. MR examination findings in various genetic syndromes are described and the role for clinical management of patients is explored.

2. **Magnetic resonance fetal and perinatal imaging** An original study using artificial intelligence methods on the comparative study of two-dimensional measurements from

ultrasound and magnetic resonance imaging and volumetric segmentation in different degrees of fetal ventriculomegaly is presented. Assoc. Hadjidekov describes cases of evaluation of cystic masses prenatally, malformations in the development of important intracranial and intravertebral structures, malformations in the excretory system and abdominal wall.

3. **Imaging of tumors and complications** - a significant number of publications focus on magnetic resonance imaging of cancer patients. The possibilities of different imaging methods for determining the types of ovarian teratomas are discussed; the findings in rare cases of bladder, nerve sheath, mammary gland tumors, etc. are described.

4. **Varieties in anatomy.** The candidate presents imaging findings in a number of anatomical variants of the cerebral arteries, hepatic vessels and ductus thoracicus.

5. **Diagnostic imaging of surgical diseases in the abdomen.** The findings in ischemic colitis, complications after liver transplantation, esophageal epiphrenic diverticula and other surgical diseases are described.

Some of the publications of Assoc. Prof. Georgi Hadjidekov are devoted to imaging diagnostics of the urinary system, interventional diagnostics, musculoskeletal imaging, magnetic resonance imaging technique and genetic syndromes.

III. Reflection (citation) of the candidate's publications in national and foreign literature (publication image)

The scientific works of Assoc. Prof. Hadjidekov have been cited 149 times since acquiring an academic position. The majority of the citations - 110 - are in scientific journals, refereed and indexed in world-known databases with scientific information, which is an indicator of the international recognition of the candidate's scientific achievements. h-index of the candidate is 7 according to the official Scopus database (excluding self-citations).

IV. Comprehensive, qualitative evaluation of teaching and learning activities

The teaching activity of Assoc. Prof. Hadjidekov started in June 2007 as an assistant professor of diagnostic imaging at Sofia University "St. Kliment Ohridski", Faculty of Medicine, Department of Physics, Biophysics and Radiology. The candidate teaches both Bulgarian and English language medical students. Until 2013 he was a senior assistant professor and since 2013 an Associate Professor in the same Department. The candidate is a lecturer in the basic imaging courses. The teaching and learning workload report of Assoc. Prof. Hadjidekov establishes that it corresponds to the requirements for holding the academic position "Professor". The applicant is a participant in 3 scientific and educational projects. Participates in the Examination Committee for the State Examination in the specialty "Diagnostic Imaging".

Assoc. Prof. Hadjidekov fully meets the minimum national requirements for the academic position "Professor" and exceeds them in the group of indicators - B, Г, Д and E. It is evident from the attached reference that the candidate fully fulfils the minimum national requirements for the academic position "Professor" in terms of the total number of published scientific works in all groups of indicators.

The above facts confirm the significant teaching and methodological activity of Assoc. Prof. Hadjidekov, as well as his professionalism and pedagogical skills.

V. Overall assessment of the candidate's compliance with the mandatory conditions and the mandatory quantitative criteria and scientific metrics according to the Regulation for Academic Positions at Sofia University "St. Kliment Ohridski"

The analysis of the enclosed materials and reports on the competition for the academic position "Professor" in the professional field 7.1. Medicine (Diagnostic Imaging) for the needs of the Medical Faculty of Sofia University "St. Kliment Ohridski", Department of Physics, Biophysics and Radiology shows that the only candidate - Assoc. Prof. Georgi Hadjidekov, PhD, meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation- regulation for filling the academic position "Professor" at

Sofia University "St. Kliment Ohridski", as it meets and exceeds the quantitative scientific metrics, according to the approved regulations and criteria.

The candidate has successfully defended one dissertation thesis, and has accordingly acquired the educational and scientific degree "Doctor", has held for more than nine years the academic position of "Associate Professor" in the scientific specialty of Diagnostic Imaging in the Department of Physics, Biophysics and Radiology at the Faculty of Medicine of Sofia University "St. Kliment Ohridski", He presents high quality scientific production with more than 230 scientific papers, 59 of them are after holding the academic position of "Associate Professor": respectively: with impact factor -9 after holding the position of "Associate Professor". Publications in international and Bulgarian journals refereed and indexed in world-renowned databases of scientific information -38, 18 publications in non-refereed journals and collections with scientific peer review. 45 scientific communications at international and national scientific forums. The scientific production of Assoc. Prof. Hadjidekov has 149 citations after holding the academic position "Associate Professor", 110 of these citations are in scientific journals, refereed and indexed in world-known databases.

Assoc. Prof. Hadjidekov shows significant teaching and methodological activity and serious pedagogical skills: he lectures on Diagnostic Imaging to medical students, graduate students in Diagnostic Imaging, conducts training of English-speaking students.

The candidate meets and exceeds the minimum national requirements for the academic position of Professor. The evidence presented for the academic post of Professor does not repeat that for the academic post of Associate Professor.

VI. Conclusion

Assoc. Prof. Georgi Vassilev Hadjidekov, MD, PhD, meets the mandatory and specific conditions and scientific-metric criteria set forth in the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation and the Regulations of the Medical Faculty, Sofia University "St. Kliment Ohridski", for holding the academic position "Professor". The overall scientific production of the candidate has an original scientific-

theoretical and applied significance. Assoc. Prof. Hadjidekov has the authority of an established professional, scientist and lecturer.

On the basis of the above, my review is entirely positive and I confidently propose to the esteemed members of the Scientific Jury to vote positively for the election of Assoc. Prof. Georgi Vassilev Hadjidekov, MD, PhD, for the position of AD "Professor" in the professional field 7.1. Medicine (Diagnostic Imaging) at the Department of Physics, Biophysics and Radiology, Faculty of Medicine, Sofia University "Kliment Ohridski"

15.08.2023

Sofia

Prof. Dora Zlatareva MD, PhD