

## OPINION

from

Prof. Dr. Nikoleta Ivanova Traykova, PhD

to prepare an opinion according the **Order No. RD-38-277/29.5.2023**

of the Rector of Sofia University "St. Kliment Ohridski".

Scientific specialty: Diagnostic Imaging

Institution: UMBAL "St. George" Plovdiv; Medical University Plovdiv

**Subject:** participation in a concourse for the academic position "PROFESSOR"

In the field of higher education 7. Healthcare and sports, professional direction 7.1. Medicine: scientific specialty "Image diagnostics", announced by SU "St. Kliment Ohridski" in the State Gazette, no. 35 of April 18, 2023

One candidate has submitted documents for participation in the competition: associate professor Dr. Georgi Vassilev Hadjidekov, PhD.

### **I. Analysis of the candidate's career development**

Associate Professor Dr. Georgi Hadjidekov graduated from Sofia Medical University in 2000 with excellent results from the state exams. He specializes in Diagnostic Imaging at Lozenetz University Hospital Sofia since January 2002, successfully passing the specialty exam in December 2006. In 2012 defended a dissertation on "Magnetic resonance urography in childhood" and obtained the educational and scientific degree "PhD". In 2007 held the academic position of "Assistant-professor" at the Medical Faculty of Sofia University "St. Kliment Ohridski", in 2011 - the academic position of "Chief Assistant-professor", and in 2013 he was elected Associate Professor at the Medical Faculty of the University of St. Kliment Ohridski, Department of "Physics, Biophysics and Radiology". Since 2014, Associate Professor Hadjidekov, PhD, has a Master's degree in Health Management.

Associate Professor Hadjidekov completed additional qualifications, internships, courses and training, both in Bulgaria and abroad: 1998 and 1999 – Hospital Juan XXIII,

Tarragona, Spain; 2000 and 2005/2006 – Hospital Jean-Minjoz, Besancon, France; MRI School – Basic Course, 2002, Zurich; Medical imaging congress Iasi, Romania – GREF - 2005; L’atelier sérologique de Saint Andrei – Bordeaux/FR- 2007; ESOR – Chest-Cardiovascular Radiology, Prague, 2007; ESOR - Cardiac Cross-Sectional Imaging, Rome, 2008; ESMRMB-MR Imaging in Pediatric Radiology, Brussels, 2008; ESOR - Abdominal/Urogenital Radiology, Sofia, 2009; ESOR – Pediatric Radiology, Sofia – 2011. Has certificates in mammography- 2003, 2007; Osteodensitometry - 2002, 2004, 2007. Magnetic resonance - 2002, 2009; Module: GCP & Essential Guidelines.

Associate Professor Hadjidekov, PhD, is a member of the Bulgarian Association of Radiology (BAR), the European Society of Radiology (ESR), the European Society of Pediatric Radiology (ESPR), the European Society of Uroradiology (ESUR), the Bulgarian Society of Clinical Densitometry and others.

Fluent is written and spoken English and French.

## **II. General description of the submitted materials for the competition**

The candidate has submitted all the necessary documents, in accordance with the requirements of ŽRASRB, the Regulations for its application and Section V: Conditions and procedure for occupying the academic position "Professor" from the Regulations for the conditions and procedure for acquiring scientific degrees and occupying academic positions in Sofia University " St. Kliment Ohridski".

## **III. Evaluation of scientific works and publications of the candidate for the overall academic development**

The total number of scientific works of Associate Professor Hadjidekov is 233 distributed as follows:

- Before the acquisition of academic position of "Associate professor" - 174
- After acquisition of academic position of "Associate professor" - 59, Out of them:
  - In magazines with an Impact Factor – 9
  - In refereed and indexed journals in world-famous databases with scientific information (Scopus and Web of science) – 29
  - In non-refereed publications with scientific review – 18
  - chapters in collective monographs published– 2

- Published University Handbook -1

After holding the academic position of "Associate professor", the candidate has 45 participations in national and international scientific forums, 3 participations in scientific and educational projects, as well as 9 reviews of books and monographs published in the journal "X-ray and radiology".

The candidate's scientific papers cover a diverse palette of diagnostic imaging sections, are published in authoritative scientific editions and reflect his wide and significant diagnostic practice. Scientific interests and developments include diagnostic imaging of: the female reproductive system, excretory system, in pediatrics, in surgical diseases of the abdomen, tumors and complications, in genetic syndromes and rare diseases; fetal and perinatal magnetic resonance diagnostics. The greatest emphasis of the developments is on the diagnosis of diseases of the female reproductive system, which is poorly represented in modern Bulgarian scientific literature. In the papers, the author presents the possibility of MRI for visualization of congenital anomalies of the uterus and their determination according to the latest classification of the European Society of Human Reproduction and Embryology (ESHRE) and the European Society of Gynecological Endoscopy (ESGE). The main classes of fetal defects are illustrated by the author's own clinical practice observations. The author also presents developments dealing with the possibilities of different imaging methods for determining the types of ovarian teratomas - mature cystic teratomas (dermoid cysts), immature teratomas and mono-dermal teratomas and imaging differentiation from other ovarian tumors. A significant part of the scientific works is also dedicated to fetal magnetic resonance diagnostics. Associate Professor Hadjidekov presents an original comparative study of two-dimensional measurements from ultrasound and magnetic resonance images on the one hand and volumetric segmentation in different degrees of fetal ventriculomegaly on the other. A comparison was also made of the possibilities of US and MRI for imaging the normal fetal lung, as well as frequent prenatal pathologies in the thorax. In co-authorship with a team of Bulgarian and Japanese scientists, an algorithm has been developed for extracting contrast-enhanced signals from magnetic resonance imaging (MRI) images by using the ImageJ script - an open source program generally available to researchers and specialists in the field of diagnostic imaging. Image processing makes it possible to assess the degree of functional damage based on

changes in the redox status of the kidney tissue and the contrast dynamics in the kidney.

Scientific papers have resulted in a total of 157 citations, 149 of which are after the acquisition of academic position of "Associate professor". The author has 110 citations in publications referenced and indexed in world-renowned databases. According to Research Gate, Research Interest Score on all publications is 135.7, citations – 221, and h-index = 7.16

#### **IV. Complex evaluation of the teaching-methodical and teaching activity**

From the submitted reference for academic employment from Sofia University "St. Kliment Ohridski" it can be seen that it significantly exceeds the required workload standards:

- 605 hours of classroom activities and 88.8 hours of non-auditory activities for 2017-2018;
- 704 hours of classroom activities and 92.4 hours of non-auditory activities for 2018-2019;
- 261 hours of classroom activities and 87 hours of non-auditory activities for 2019-2020.
- 683 hours of classroom activities and 84.6 hours of non-auditory activities for 2020-2021.
- 473 hours of classroom activities and 85.2 hours of non-auditory activities for 2021-2022.
- 211 hours of classroom activities and 76.8 hours of non-auditory activities for 2022-2023 /winter semester/.

From the 2017/2018 academic year until the announcement of the concourse Associate Professor Hadjidekov gave lectures and practical exercises to Bulgarian medical students; of foreign medical students / 91 hours of lectures in English and 942 hours of exercises in English/; of student nurses and physical therapists. He was the tutor and mentor of 7 specialists, as well as a lecturer in training courses abroad: European School of Oncology ESO – Virtual Colonoscopy, 2006, Galen Foundation Course ESOR – Pediatric Radiology, 2011, ESGAR, 28th Annual meeting and postgraduate course, June 2017, Athens.

#### **V. Critical notes and recommendations:**

I have no critical notes and recommendations.

## **VI. Overall assessment of the applicant's compliance with the minimum scientometric requirements**

Associate Professor Hadjidekov, PhD meets the mandatory conditions and scientometric indicators under Art. 2b, paragraph 2 and Art. 2b, paragraph 5 of the ZRASRB and the specific ones for Sofia University "St. Kliment Ohridski" requirements for occupation of academic position of "Associate professor".

Self-assessment table - Mandatory minimum scientometric indicators for direction 7.1. Medicine (medical-clinical) according to Art. 2b of ZRASRB:

Indicator group	Minimum required number	Number of points
A	50	50
B	100	189
Г	200	682,20
Δ	100	2040
E	100	138,33

### **Conclusion**

Assoc. Dr. Georgi Vassilev Hadjidekov, PhD, is an established specialist in Diagnostic Imaging with many years of professional experience. In combination with the extensive educational and teaching activity, including the training of students, specialists, doctoral students and specialists, which exceeds the quantitative indicators and criteria, as well as considering his personal and professional qualities, I give my positive vote and recommend to the respected members of the Scientific Jury to award of Associate Professor Dr. Georgi Vassilev Hadjidekov, MD, PhD, the academic position "Full Professor".

August 8, 2023  
Plovdiv

Signature:  
Prof. Dr. Nikoleta Iv. Traykova, PhD