

## REVIEW

**Regarding:** Competition for the academic position of "ASSOCIATE PROFESSOR" in the field of higher education 7. "Health and Sports", professional field 7.1 Medicine ", scientific specialty "RADIATION THERAPY" for the needs of the Burgas State University "Prof. Dr. Asen Zlatarov"

**Reviewer:**

**PROF. IGLIKA SPASOVA MIHAYLOVA, DM, PhD**

**Deputy Executive Director**

**Head, Department of Radiation therapy**

**USBALO "Prof. Ivan Chernozemski" - EAD, Sofia**

### I. Information about the Competition

The competition for the academic position of "Associate Professor" in the scientific specialty "Radiation therapy" has been announced for the needs of the Burgas State University "Prof. Dr. Asen Zlatarov". The announcement of the competition was published in the State Gazette, issue 61/29.07.2025 and on the website of the Burgas State University.

According to Order № ПД-345/30.09.2025r by the Rector of the Burgas State University "Prof. Dr. Asen Zlatarov" and in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation, and the Rules for the Development of the Academic Staff of the Burgas State University "Prof. Dr. Asen Zlatarov", I was appointed as an internal member of the Scientific Jury in the competition for the academic position "Associate Professor" in the field of higher education 7. Healthcare and Sports, professional field 7.1 Medicine, scientific specialty "Radiation therapy".

The decision of the first remote session of the Scientific Jury was for me to present a **review**.

The review is based on the complete documentation submitted by Dr. Kiril Zhelev, in accordance with the Regulations for the Development of the Academic Staff of the Burgas State University "Prof. Dr. Asen Zlatarov" Burgas and the requirements and criteria of the Act on the Development of the Academic Staff in the Republic of Bulgaria. The documentation submitted by the candidate is complete and accurate, prepared in accordance with the requirements of the university, and the necessary original evidence materials are presented.

### II. Biographical Data of the Candidate

**Kiril Zhelev, MD, PhD** obtained a master's degree in medicine from the Medical University "Prof. Dr. Paraskev Stoyanov", Varna in 2016. Since 2022 he has a recognized specialty in Radiation therapy.

In 2024, he successfully defended his scientific and educational degree PhD, Specialty "Oncology" on the topic: **"The prognostic significance of the preoperative rectal cancer assessment scale (NAR score) and its relationship with the skeletal muscle index in patients with rectal cancer**

**treated with preoperative chemoradiotherapy"** at the USBALO "Prof. Ivan Chernozemski" – Sofia.

He began his academic development as an assistant professor in 2017 at the Department of Imaging and Radiotherapy at MU-Varna, until 2019. He was a lecturer of medical and dental students in the discipline "Radiation Therapy" - Bulgarian and English language at the Faculty of Medicine and Faculty of Dental Medicine of the Medical University "Prof. Dr. Paraskev Stoyanov", Varna, for the period 2017-2019. He actively participated in the administrative and organizational activities of the Department of Imaging Diagnostics and Radiotherapy and in the conduct of the semester exams in the above-mentioned disciplines.

From 2017 to 2019 he worked at the University Hospital "St. Marina", Varna, from 2019 to 2022 at the "Uni Hospital", Panagyurishte, from 2022 to 2025 at the MHAT "Heart and Brain", Pleven, Currently he works in the Department of Radiation therapy of the University Hospital "Deva Maria", Burgas.

He is a member of the Bulgarian Medical Union (BLS) and the European Society of Radiation Oncology (ESTRO).

During the period 2017 - 2025, he actively participated in several national and international congresses, conferences, etc.

Dr. K. Zhelev is fluent in English and German.

### **III. Normative documentation for participation in the competition**

The candidate submits all normatively required documents for the competition: CV, copies of diploma for educational and scientific degree of doctor, copies of diploma for acquired specialty in radiotherapy, list of scientific works and publications, author's reference for the scientific contributions of the works, reference for impact factor, list of citations, certificate of criminal record. The documents are complete and accurate and meet the requirements of BSU "Prof. Dr. Asen Zlatarov".

### **IV. Scientific production participating in the competition**

#### **Fulfilment of the requirements for holding the academic position of "Associate Professor"**

Kiril Zhelev, MD, PhD has met the minimum national requirements for the academic position of Associate Professor.

**Indicators Group A:** Includes a requirement for a defended dissertation, which covers **50 points**. Evidence of this has been provided.

**Indicators Group B:** Under this group of indicators, Zhelev, MD scores **119.23 points**, out of a required **100**. The candidate has provided **10 scientific publications** in journals that are refereed and indexed in world-renowned databases of scientific information.

**Indicators Group D:** This includes the publications presented. Zhelev, MD has presented **23 scientific publications and reports in periodicals**, all of them in full text published after acquiring the degree "PhD". Fourteen of the publications are in English and 9 are in Bulgarian.



In this group of indicators, Zhelev, MD has **229.42 points**, with a required score of **220**. The relevant evidence has been presented.

**Indicators Group E:** Includes the total number of citation points. In this group, Zhelev, MD achieved **150 points**, with a required **60**. A list and supporting material for citations of publications is attached - **10 citations** in international journals in the Scopus, Web of Knowledge and Google Scholar databases.

**The total Impact factor is 235.807.**

### **Summary Evaluation of the Main Scientific Contributions**

Dr. Zhelev's main scientific contributions can be grouped as follows:

#### **1. Research on sarcopenia in patients with rectal cancer**

In his dissertation, Zhelev, MD investigated the relationship between the skeletal muscle index (SMI) and the neoadjuvant rectal score (NAR) in patients with locally advanced rectal adenocarcinoma treated with neoadjuvant combined chemoradiotherapy (nCCRT) with capecitabine and subsequent surgery. We measured the thickness and skeletal muscle index in 91 patients before and after preoperative CCRT and examined the relationship between the change in SMI and NAR score. Predictive markers were determined that could identify patients at risk of muscle weakness and poorer treatment outcomes.

#### **2. Radiosurgery for meningiomas**

In two of his scientific papers, Zhelev, MD examines the treatment of meningiomas with radiosurgery, using the RANO criteria and their relationship with the NANO scale for evaluation. Patients who responded to treatment had significantly lower NANO scores than those who did not respond. The biomarker was able to significantly and "excellently" differentiate between responders and non-responders.

In two other scientific papers, Zhelev, MD presents the role of inflammatory haematological indicators before radiosurgery treatment of meningiomas, as a biomarker that can perfectly distinguish patients with a response to the treatment and those with a potentially poor outcome.

#### **3. Research on the predictive role of SUVmax in patients undergoing radiosurgery for Adrenal metastases**

Stereotactic Body Radiation Therapy (SBRT) is a well-established method for the treatment of oligometastatic disease and is increasingly being used to treat adrenal metastases. Dr. Zhelev conducted a study on the role of SBRT in the treatment of adrenal metastases and the relationship with SUVmax before the start of therapy. Patients who responded to SBRT had significantly lower SUV max values compared to those who did not respond. At appropriate SUV max cutoff values, the biomarker significantly and moderately discriminated between patients with and without metabolic response.

#### **4. Research on distress in cancer patients**

Dr. Zhelev is conducting a study of distress in patients with malignant solid tumours. Distress levels were measured using a validated instrument and an alternative ultra-brief screening test for distress was proposed by determining the subjective perception of time in patients. In the studied patient population, correlations between basic demographic and clinicopathological characteristics of the patients on the one hand and levels of distress and the perception of time on the other hand were investigated. Predictive markers were determined that could identify patients at risk of having high levels of distress.

#### **5. Research of the frequency of KRAS mutations in patients with colorectal carcinoma and its prognostic role in the treatment of liver metastases with radiosurgery**

A large study investigated the frequency and variants of KRAS mutations in patients with metastatic colorectal cancer undergoing radiosurgery for liver metastases, examining their prognostic role in terms of progression-free survival and overall survival.

#### **6. Research in the field of sarcopenia**

Dr. Zhelev presents the most developments in this area, with the studies based on patients with various nosology (head and neck tumours, glioblastomas, brain metastases). The developments show that patients with lower muscle mass have worse overall survival and tend to respond worse to the respective treatment.

#### **V. Medical practice**

Kiril Zhelev, MD, PhD has 9 years of experience. His professional career covers all aspects of the treatment of malignant solid tumours in adults. His scientific work fully corresponds to the establishment and success in clinical practice.

#### **VI. Conclusion**

**Based on the significant scientific contribution in the field of radiotherapy, the academic erudition and clinical expertise of Kiril Zhelev, MD as well as on the basis of the submitted documents in full compliance with national requirements, I strongly recommend that the esteemed scientific jury award Kiril Zhelev Zhelev, MD, PhD the academic position of "Associate Professor" in the scientific specialty "Radiation therapy," professional field 7.1. Medicine, field of higher education 7. Health and Sports for the needs of the Burgas State University "Prof. Dr. Asen Zlatarov".**

Prof. Iglia Spasova Mihaylova, MD, PhD