OPINION

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Regarding: Competition for the academic position of **"ASSOCIATE PROFESSOR"** in the field of higher education 7. "Healthcare and Sport", professional field 7.1 "Medicine", scientific specialty "RADIOTHERAPY" for the needs of Burgas State University "Prof. Dr. Assen Zlatarov" Burgas University (BSU)

I.   Information regarding the competition

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

According to Order No. RD-345/30.09.2025 of the Rector of BSU "Prof. Dr. Assen Zlatarov", and in accordance with the requirements of the Regulations for the Implementation of the Law on the Development of the Academic Staff of the Republic of Bulgaria (LDASRB), the Internal Rules for the Procedure for Acquiring Scientific Degrees and Academic Positions (IRPASDAP), and the Regulations for the Development of the Academic Staff of BSU, I have been selected as an external member of the Scientific Jury in a competition for the academic position of "Associate Professor" in the field of higher education 7. "Healthcare and Sport", professional field 7.1 "Medicine", scientific specialty "Radiotherapy". The decision of the first extramural (remote) session of the Scientific Jury is for me to present a review.

All procedural requirements regarding the announcement of the competition, the deadline for submitting documents, and the selection of the Scientific Jury have been met. Kiril Zhelev Zhelev, MD, PhD, a specialist in "radiotherapy", meets all the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria (LDASRB), its Implementing Regulations, and

the Regulations for the Development of the Academic Staff of BSU. All regulatory requirements regarding the competition procedure have been fulfilled. The candidate's documents are exhaustive and in full compliance with the regulatory requirements for admission to participate in the competition for the academic position of "Associate Professor".

II. Biographical data of the candidate

Kiril Zhelev, MD, PhD, completed his secondary education in 2010 at the "Dobri Chintulov" Natural Sciences and Mathematics High School in Sliven. In 2016, he obtained an educational and qualification degree of "Master of Medicine" from "Prof. Dr. Paraskev Stoyanov" Medical University - Varna. He was awarded the specialty "Radiotherapy" in 2022.

In 2024, he successfully defended a dissertation thesis to acquire the educational and scientific degree of "Doctor" (PhD) in the scientific specialty "Oncology". The topic of the dissertation – "The prognostic value of the preoperative NAR score and its association with the skeletal muscle index in patients with rectal carcinoma undergoing preoperative chemoradiotherapy" – was completed at the Specialized Hospital for Active Treatment in Oncology "Prof. Ivan Chernozemski" in Sofia.

In the period 2017–2019, Dr. Zhelev worked as an assistant professor in the Department of Imaging Diagnostics and Radiotherapy at Medical University – Varna, where he participated in the educational process and departmental activities.

He is an active participant in a number of prestigious international and national scientific events, including forums of ASCO, ESMO, and ESTRO. He is a member of the Bulgarian Medical Association (BMA) and the European Society for Radiotherapy and Oncology (ESTRO), which underlines his commitment to the professional and scientific community.

III. Fulfillment of the requirements for the academic position of "Associate Professor"

Kiril Zhelev, MD, PhD, fully satisfies the minimum national criteria for occupying the academic position of "Associate Professor" stipulated in the current regulatory framework. Comprehensive and correctly formatted supporting materials have been provided for each of the respective groups of indicators.

1. **Evaluation by groups of indicators according to the Law on the Development of the Academic Staff of the Republic of Bulgaria (LDASRB) and its Implementing Regulations (IRPASDAP)**

Group A – Scientific Degree

The candidate certifies the fulfillment of the primary requirement – a successfully defended dissertation for acquiring the educational and scientific degree of "Doctor" (PhD). The documentation presented is complete and fully corresponds to the requirements for awarding 50 points under indicator A, which is a mandatory condition for participation in the competition.

Group B – Publications in refereed and indexed editions

Under this group of indicators, Zhelev, MD accumulates 119.23 points against a normative minimum of 100 points. The points are based on 10 original scientific publications published in globally recognized and indexed databases (Scopus, Web of Science, etc.). The publications are characterized by:

- international recognition,

- high scientific quality,

- appropriate methodological structure,

- focus on current scientific problems in the field of radiation oncology.

Group G – Scientific works after acquiring the educational and scientific degree of "Doctor" (PhD)

In this group, the candidate presents 23 independent or co-authored scientific works, all provided in full text, created after the defense of the dissertation. It is indicative that:

- 14 articles are in English – an indicator of the internationalization of his scientific output,

- 9 publications are in Bulgarian – reflecting a contribution to national medical science.

The cumulative result of 229.42 points significantly exceeded the required 220 points, which emphasizes his high scientific activity and systematic work.

Group D – Citations

Zhelev, MD collects 150 points against a minimum requirement of 60 points, presenting a detailed list of 10 international citations. The citations are in high-authority international publications indexed in Scopus, Web of Knowledge, and Google Scholar. There is clear evidence that his scientific output is used as reference material in global radiation oncology.

Overall Impact Factor

The cumulative impact factor – 235.807 – testifies to the significant quality and influence of the candidate's scientific publications, with the value being comparable to the average indicators for leading European clinical researchers in the field.

2. Extended analysis of the scientific contributions by main thematic areas

Zhelev, MD research activity is conceptually stable, interdisciplinary, and oriented towards clinically significant problems in oncology. The presented works can be systematized into the following six key areas.

Application of body composition and sarcopenia as prognostic biomarkers in oncology patients

In his dissertation work, the candidate conducts an in-depth study on the role of the skeletal muscle index (SMI) in patients with locally advanced rectal adenocarcinoma undergoing combined preoperative chemoradiotherapy with capecitabine, followed by surgical treatment. Among other things, the following were analyzed:
- dynamic changes in SMI before and after therapy,
- the influence of body composition on the preoperative NAR score,

- The identification of high-risk groups of patients with a higher probability of therapeutic failure or development of muscle weakness.

   These contributions are in sync with the most current international research which emphasizes the importance of sarcopenia in determining individual oncological risk and survival.

Radiosurgery treatment of meningiomas – prognostic models and biomarkers

In two of his publications, Zhelev, MD performs a complex analysis of the RANO and NANO criteria for response assessment in patients with meningiomas. He demonstrates:

- statistically significant differences in neurological indicators between responder and non-responder patients,
- the ability of clinical scales to predict therapeutic success in radiosurgery.

   In two other studies, he investigates pre-treatment hematological inflammatory markers (NLR, PLR, LMR) as accessible and clinically applicable biomarkers that successfully stratify patients by risk even before the start of treatment.

Metabolic Predictors in SBRT for Adrenal Metastases

Zhelev, MD works on the role of PET/CT-derived SUVmax in the context of stereotactic body radiotherapy (SBRT) for adrenal metastases represents an innovative model for predicting local control.

He identifies:

- statistically significant differences in SUVmax between patients with good versus poor therapeutic response,
- optimal cut-off values that allow early assessment of the likelihood of a metabolic response.

This line of research demonstrates an integration of imaging diagnostics, molecular characteristics, and radiotherapeutic decision-making—a key approach in modern personalized oncology.

Research in Psycho-Oncology – Distress and Cognitive Time

In a study aimed at identifying psycho-emotional distress in patients with malignant solid tumors, Zhelev, MD uses validated assessment tools but enhances existing models by:

- developing an ultra-short screening test based on subjective time perception,
- analyzing the relationships between distress, demographic parameters, and clinico-pathological characteristics,
- identifying patient subgroups at increased risk of psychological decompensation.

This represents a contribution with strong potential for implementation in everyday oncological practice.

Molecular-Genetic Predictors – KRAS Mutations in Liver Metastases

In an extensive investigation of KRAS mutations and their role in the radiosurgery management of colorectal cancer liver metastases, the candidate analyzes:

- the distribution of individual mutational variants,
- their influence on progression-free survival,
- their prognostic value for local tumor control in SBRT.

These findings are especially relevant, as they reflect the synergy between molecular pathology and radiation oncology.

Additional Research in the Broad Field of "Sarcopenia Across Oncologic Entities"

Beyond his primary dissertation work, Zhelev, MD has published an expanded body of articles focusing on patients with glioblastomas, brain metastases, and head and neck tumors. These findings consistently demonstrate that reduced muscle mass:

- is a negative prognostic factor,
- correlates with lower therapeutic response,
- serves as an indicator of shorter overall survival.

IV. Teaching and Educational Activities

Between 2017 and 2019, Zhelev, MD conducted practical training sessions and participated in the full teaching process in "Radiation therapy" at the Medical University of Varna, working with both medical and dental students (Bulgarian and English programs). He was actively involved in:

- preparing teaching materials,
- administering semester assessments,
- supporting the administrative and organizational activities of the department.

This attests to his commitment, pedagogical competence, and readiness to assume higher academic responsibilities.

V. Conclusion

Kiril Zhelev Zhelev, MD, PhD, stands out as a fully developed clinician and researcher whose professional trajectory demonstrates a sustained interest in scientific inquiry and a consistent accumulation of competencies in the field of radiation oncology. The analysis of the submitted materials—scientific publications, citations, impact-factor records, certifying documents, and the complete evidentiary dossier—clearly confirms that the candidate not only meets the minimum quantitative criteria but also fulfills the high qualitative standards for academic productivity set forth in the Law on the Development of the Academic Staff in the Republic of Bulgaria, its implementing regulations, and the internal normative documents of the University.

Zhelev, MD scientific contributions are characterized by originality, methodological rigor, and a distinctly innovation-oriented approach to oncology. His publications demonstrate a stable academic presence both nationally and internationally, while his proven citation record attests to the real impact and applicability of his research. In the area of teaching, the candidate has demonstrated the necessary pedagogical skills and the ability to participate effectively in the academic process of higher medical education.

In view of the thorough assessment of Kiril Zhelev Zhelev, MD scientific, clinical, and teaching activities, and based on the unequivocal evidence of his qualifications and professional

capacity, I consider him to fully meet all criteria for appointment to the academic position of *Associate Professor* in the scientific specialty "Radiation therapy" within professional field 7.1 "Medicine," higher education area 7 "Healthcare and Sports."

Therefore, I confidently recommend that the esteemed academic committee approve Kiril Zhelev Zhelev, MD, PhD, for appointment to the aforementioned academic position.

10.11.2025   Prof. Nikolay Conev, MD, PhD