

REVIEW

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Regarding: procedure for academic position of **Associate Professor** in Higher Education Area 7 – **Healthcare and Sports**, Professional Field 7.1 – **Medicine**, scientific specialty “**Oncology**”, for the needs of the Clinic of Medical Oncology at **Acibadem City Clinic University Hospital Tokuda EAD**

1. Information on the Procedure

The competition for the occupation of the academic position of **Associate Professor** in Professional Field 7.1 **Medicine**, scientific specialty **Oncology**, for the needs of the Department of Medical Oncology at **Acibadem City Clinic University Hospital Tokuda EAD**, was announced in the *State Gazette*, Issue No. 35 of **14 April 2026**.

Pursuant to Order No. **15-03-141#2/12 June 2026** of the Executive Director and the Procurator of **Acibadem City Clinic University Hospital Tokuda EAD**, I was appointed as a member of the Academic Jury and reviewer in the present competition procedure.

One candidate has submitted documents for participation in the competition—**Dr Tanya Lyubomirova Zlatanova, MD, PhD**. Following a detailed review of the submitted materials, I conclude that the candidate fully complies with all requirements of the **Academic Staff Development Act in the Republic of Bulgaria**, its Implementing Regulations, and the **Regulations governing the acquisition of scientific degrees and appointment to academic positions at Acibadem City Clinic University Hospital Tokuda EAD**.

The submitted documentation is complete, well structured, and provides a sound basis for an objective assessment of the candidate's scientific, teaching, clinical, diagnostic, and expert activities. My review of the scientific publications revealed no evidence of plagiarism or any other breach of academic integrity.

2. Brief Biographical Information and Professional Development of the Candidate

Dr Tanya Lyubomirova Zlatanova completed her secondary education in 1995 at the “**Yoan Exarch**” Language High School in Vratsa, specializing in English language studies. She graduated with a degree in Medicine from the Medical University of Sofia in 2001. She obtained board certification in **Internal Medicine** in 2008, followed by board certification

in **Medical Oncology** in 2016. In **October 2024**, she successfully defended her doctoral dissertation entitled "**Markers of Systemic Inflammation and the Effectiveness of Immunotherapy in Patients with Metastatic Non-Small Cell Lung Cancer**", for which she was awarded the academic degree of **Doctor (PhD)**.

Her professional career began in the Department of Internal Medicine at **Ihtiman Multiprofile Hospital for Active Treatment**, after which she continued her work at **Tokuda Hospice**. Since **2012**, she has been working at the Department of Medical Oncology of **Acibadem City Clinic University Hospital Tokuda EAD**, where she has progressively established a reputation as a highly qualified clinician with clearly defined scientific interests in **thoracic oncology, immuno-oncology, and personalized anticancer therapy**.

Following a successfully completed competitive selection procedure in **2025**, she was appointed to the academic position of **Senior Assistant Professor**. She actively participates in the education of medical students and residents in Medical Oncology. Since **2019**, she has also served as a **part-time lecturer** at the Faculty of Medicine of **Sofia University "St. Kliment Ohridski"**, where she teaches medical students in English.

The candidate's continuous commitment to professional development is particularly noteworthy. Dr Zlatanova has participated in a number of prestigious international educational programmes and specialist training courses organized by the **European School of Oncology (ESO)**, the **European Society for Medical Oncology (ESMO)**, **CECOG**, and the **European Cancer Organisation**, including the **ESCO Fellowship** and **INTERACT-EUROPE100** programmes. These programmes are characterized by highly competitive selection procedures and provide clear evidence of the candidate's active integration into the European academic oncology community.

The international experience she has acquired is directly reflected both in her scientific output and in her daily clinical practice, which is a distinguishing feature of a contemporary university lecturer.

Dr Zlatanova's professional development is characterized by consistency and a clearly defined scientific focus. In recent years, her activities have demonstrated the purposeful development of an academic profile through the successful defence of a doctoral dissertation, publications in international journals with an Impact Factor, participation in international scientific projects, organization of scientific meetings, and active teaching. Taken together, these achievements identify a candidate with clearly demonstrated potential for further academic development.

3. Research Activities and Related Contributions

Following a detailed analysis of the submitted documentation, I consider that **Dr Tanya Lyubomirova Zlatanova** fully meets and, according to a number of indicators, substantially exceeds the minimum national requirements for appointment to the academic position of **Associate Professor**, as stipulated by the Academic Staff Development Act in the Republic of Bulgaria and its Implementing Regulations. The submitted documentation is

comprehensive, well systematized, and allows an objective assessment of the candidate's scientific activity.

Indicator Group A: The candidate meets the requirement through the successful defence of a doctoral dissertation for the award of the educational and scientific degree of **Doctor (PhD)**, entitled **“Markers of Systemic Inflammation and the Effectiveness of Immunotherapy in Patients with Metastatic Non-Small Cell Lung Cancer,”** corresponding to **50 points**.

Indicator Group B: Dr Tanya Zlatanova has achieved the required **100 points out of 100**.

Particularly impressive are the results achieved under **Indicator Groups C and D**, where both the candidate's scientific output and citation record substantially exceed the required minimum. The total number of points presented amounts to **838.34**, which is **more than twice** the minimum required **400 points**.

This outstanding result reflects a well-planned and sustained scientific career characterized by thematic consistency, strong international visibility, and a clear clinical orientation.

3.1. Assessment of the Scientific Output

The scientific output of **Dr Tanya Lyubomirova Zlatanova** is logically structured, thematically coherent, and directed toward addressing current challenges in contemporary medical oncology. The submitted publications demonstrate the progressive development of her scientific interests, focusing primarily on **immuno-oncology, lung cancer, inflammatory biomarkers, and personalized cancer therapy**.

The candidate participates in the competition with **36 scientific works**, comprising **one doctoral dissertation, one monograph, and 34 scientific publications**, of which **nine** have been published in international journals indexed in **Scopus** and **Web of Science**, including **seven publications in journals with an Impact Factor**. The cumulative **Impact Factor of 35.4** represents an excellent achievement for a candidate applying for the academic position of **Associate Professor**.

It is particularly important to note that in **58.3%** of these publications, the candidate is either the **first author or the sole author**. This clearly demonstrates that Dr Zlatanova is not merely a contributing member of research teams but rather the principal initiator and driving force behind a substantial proportion of the scientific work.

Another noteworthy feature is the well-balanced combination of **original research articles, review papers, practice-oriented analyses, and publications based on real-world clinical practice**. This reflects her ability both to generate new scientific knowledge and to critically interpret international evidence for its application in everyday clinical practice.

The candidate has presented **39 independent citations**, including citations in publications indexed in **Scopus** and **Web of Science**, with an **H-index of 2** in both international

databases. These bibliometric indicators confirm the genuine international visibility of Dr Zlatanova's scientific work and the recognition of her published research within the scientific community.

Particularly impressive is the candidate's active participation in scientific meetings. She has delivered **30 scientific presentations** at national and international congresses, serving as **first author and presenter** in the majority of them. This demonstrates not only an active scientific career but also her ability to effectively present and defend her own research findings before the professional community.

Special recognition should also be given to Dr Zlatanova's participation in the **INTERACT-EUROPE100** project of the **European Cancer Organisation**, as well as her role as **Principal Investigator and Sub-Investigator** in numerous international clinical trials. These activities demonstrate a high degree of integration into the European research community and contribute directly to the implementation of the latest advances in medical oncology into clinical practice in Bulgaria.

General Characteristics of the Scientific Activity

The scientific activity of **Dr Tanya Lyubomirova Zlatanova** is distinguished by several clearly identifiable characteristics.

First and foremost, it demonstrates the consistent development of an **independent research direction** devoted to the role of **systemic inflammation as a prognostic and predictive factor in solid tumours**, with particular emphasis on **non-small cell lung cancer (NSCLC)**. This research topic is highly relevant, as contemporary immuno-oncology increasingly seeks reliable biomarkers to optimize the selection of systemic anticancer therapies.

Secondly, the candidate's scientific work is characterized by its **direct clinical applicability**. Nearly all publications originate from real-world clinical practice and address specific questions arising in the management of patients with malignant diseases. This significantly enhances both the clinical relevance and the practical value of her scientific output.

Thirdly, the international orientation of her research activity deserves particular recognition. Publications in journals with an **Impact Factor**, participation in **international clinical trials**, and involvement in **European educational programmes** have created favourable conditions for the integration of the candidate's scientific achievements into the international academic community.

Based on the above, I assess the scientific output of **Dr Tanya Lyubomirova Zlatanova** as **contemporary, original, thematically coherent, and of high practical value**, fully meeting the expectations for a candidate applying for the academic position of **Associate Professor**.

3.2. Assessment of the Scientific and Applied Scientific Contributions

The scientific interests of **Dr Tanya Lyubomirova Zlatanova** are clearly focused on **modern systemic therapy for solid tumours**, with particular emphasis on **lung cancer, immuno-oncology, inflammatory biomarkers, and personalized medicine**. Her scientific publications demonstrate logical continuity between individual studies and a clear connection between research findings and everyday clinical practice.

Scientific Contributions in the Field of Inflammatory Biomarkers

The candidate's most significant scientific contributions are undoubtedly related to the investigation of the **role of systemic inflammation in patients with malignant diseases**, particularly in those with **metastatic non-small cell lung cancer**. This field of research defines her independent scientific profile.

I particularly appreciate the fact that the candidate does not limit her work to describing the association between inflammatory indices and survival outcomes. Instead, she has developed a **comprehensive model for evaluating their prognostic and predictive value** with regard to **tumour response, progression-free survival, overall survival, the risk of early mortality, and the risk of venous thromboembolic events**.

The prospective studies evaluating the **Systemic Immune-Inflammation Index (SII), Khorana Score, modified Khorana Score (mKS), and the Advanced Lung Cancer Inflammation Index (ALI)** are of considerable scientific importance, representing among the **first prospective investigations of this kind conducted in Bulgaria**. The findings demonstrate that these readily available laboratory biomarkers can successfully support **risk stratification and therapeutic decision-making** in patients receiving immunotherapy.

Another valuable contribution is the candidate's research on **early mortality in patients treated with immunotherapy**, an area that remains relatively underexplored in the international literature. The practical significance of these findings is evident, as they facilitate the identification of patients with an unfavourable prognosis **before the initiation of systemic treatment**.

Special recognition should also be given to the candidate's **monograph on inflammatory biomarkers in oncology**. Rather than being a conventional literature review, it provides a **critical analysis of the evolution of the concept of systemic inflammation as a key factor in carcinogenesis and therapeutic response**. The monograph has considerable educational value and could serve as a modern reference textbook for residents and young medical oncologists.

Lung Cancer and Immuno-Oncology

The second major focus of the candidate's scientific activity is the **diagnosis and systemic treatment of lung cancer**.

Her scientific publications demonstrate an in-depth understanding of both **contemporary immunotherapeutic strategies** and **novel classes of anticancer agents**. Particularly impressive are her review articles and analyses devoted to **antibody–drug conjugates (ADCs)**, one of the most rapidly evolving fields in modern medical oncology.

The author goes beyond merely describing individual therapeutic agents. She critically analyses their **mechanisms of action, the role of individual molecular targets, factors influencing toxicity, and future opportunities for combination therapies**. This demonstrates her ability to critically evaluate scientific evidence and effectively integrate it into clinical practice.

Also of considerable value are the presented **real-world clinical data** on patients with **small-cell lung cancer** treated with **chemo-immunotherapy**. The analysis demonstrates that the outcomes reported in pivotal registration clinical trials can be successfully reproduced in routine clinical practice, representing a contribution of immediate practical relevance.

Equally commendable is the candidate's participation in an **international study evaluating access to modern therapies for non-small cell lung cancer across 18 European Union Member States**. This reflects her interest not only in the clinical aspects of the disease but also in the organization of oncology care and equitable patient access to innovative therapies.

Scientific Contributions in the Field of Immuno-Oncology

Immuno-oncology represents one of the most extensively developed areas of the candidate's scientific work.

Particularly noteworthy is her systematic synthesis of the results from leading international clinical trials and their transformation into **practical treatment algorithms**. This represents an excellent example of **translational research**, whereby international scientific evidence is successfully adapted for implementation in everyday clinical practice.

Her publications demonstrate an excellent understanding of the **biology of the tumour microenvironment**, the **mechanisms of action of immune checkpoint inhibitors**, and the role of **immunotherapy across different subtypes of lung cancer**.

Other Scientific Areas

In addition to her principal research focus, the candidate has also developed active scientific interests in **breast cancer, gastrointestinal malignancies, gynaecological cancers, and rare clinical case reports**.

Although these publications constitute a smaller proportion of her overall scientific portfolio, they demonstrate the candidate's broad clinical expertise and her ability to apply the principles of **personalized medicine** across a wide range of solid tumours. Particularly valuable are her analyses of **triple-negative breast cancer, mechanisms of endocrine resistance, and contemporary molecularly targeted therapies**.

Overall Assessment of the Scientific Contributions

Following a comprehensive evaluation, I conclude that the scientific contributions of **Dr Tanya Lyubomirova Zlatanova** may be summarized as follows:

- development and validation of the prognostic value of **inflammatory biomarkers** in patients with lung cancer;
- generation of new scientific evidence regarding the role of the **Systemic Immune-Inflammation Index (SII), Khorana Score, modified Khorana Score (mKS), and the Advanced Lung Cancer Inflammation Index (ALI)** in clinical practice;
- significant contributions to the advancement of **immuno-oncology** and **personalized anticancer therapy**;
- systematic synthesis of contemporary knowledge on **antibody–drug conjugates (ADCs)**;
- presentation of **real-world clinical data** from Bulgarian oncology practice;
- active participation in **international scientific initiatives and collaborative research projects**.

The candidate's scientific achievements are **original, highly relevant, and directly applicable to clinical practice**. They represent a significant contribution to the advancement of **Medical Oncology in Bulgaria** and clearly demonstrate the establishment of an **independent and well-defined scientific profile**.

4. Teaching Activities

The teaching activities of **Dr Tanya Lyubomirova Zlatanova** represent a natural extension of her clinical and research work. She successfully combines the daily care of oncology patients with the education of medical students and residents in Medical Oncology, thereby fulfilling one of the fundamental principles of university medicine—the integration of **education, research, and clinical practice**.

The candidate actively participates in the education of medical students at the **Faculty of Medicine, Sofia University "St. Kliment Ohridski"**, including teaching in **English**, which demonstrates not only her excellent command of the language but also her ability to teach in an international academic environment.

In addition, Dr Zlatanova is actively involved in the practical training of residents in Medical Oncology and serves as a **specialty training supervisor**. The practical education of young physicians in a discipline such as Medical Oncology requires not only outstanding professional competence but also the ability to systematically transfer knowledge, foster clinical reasoning, and promote ethical principles in the management of cancer patients.

The candidate's active participation as an invited speaker at numerous **national and international scientific meetings** is particularly noteworthy. Delivering scientific lectures to professional audiences is an essential component of academic development, as it requires an in-depth understanding of the subject matter together with the ability to critically present and interpret scientific evidence. The submitted documentation clearly demonstrates that Dr Zlatanova is an established lecturer whose presentations address the most important and rapidly evolving topics in contemporary Medical Oncology.

In my opinion, the candidate's teaching activities fully satisfy the requirements expected of a university lecturer and provide an excellent foundation for her future development as a **habilitated academic staff member**.

5. Clinical and Diagnostic Activities

The professional activity of **Dr Tanya Lyubomirova Zlatanova** is characterized by a high level of clinical competence, consistency, and a strong commitment to implementing contemporary standards in the treatment of solid tumours.

As a **Medical Oncologist** at the Department of Medical Oncology of **Acibadem City Clinic University Hospital Tokuda EAD**, the candidate is actively involved in the diagnosis, treatment, and follow-up of patients with malignant diseases. Her clinical practice is focused primarily on the management of patients with **lung cancer, breast cancer, and other solid tumours**, with particular emphasis on the application of **immunotherapy, targeted therapy, and personalized treatment strategies**.

Dr Zlatanova also actively participates in **international clinical trials** as both **Principal Investigator** and **Sub-Investigator**. This reflects not only the high level of professional confidence placed in her but also her ability to conduct research in accordance with the highest standards of **Good Clinical Practice (GCP)**. Through this work, she contributes to the introduction of innovative anticancer therapies and provides Bulgarian patients with access to modern treatment options even before their widespread implementation into routine clinical practice.

I particularly appreciate Dr Zlatanova's active participation in the **multidisciplinary approach to the management of oncological diseases**. Her involvement in the organization of and participation in scientific meetings dedicated to **thoracic malignancies** demonstrates her commitment to fostering collaboration among specialists from different medical disciplines with the aim of optimizing both diagnostic and therapeutic processes.

Her active participation in international educational programmes organized by the **European School of Oncology (ESO)**, the **European Cancer Organisation (ECO)**, and other leading European professional organizations should also be recognized. These activities contribute not only to her own professional development but also to the implementation of **European standards of oncology care** in Bulgarian clinical practice.

6. Conclusion

Following a comprehensive analysis of the submitted documentation, I conclude that **Dr Tanya Lyubomirova Zlatanova** is an established **Medical Oncologist** and an accomplished **university lecturer** who successfully combines clinical practice with scientific research and teaching.

Her scientific output is characterized by **thematic consistency, originality, and a high degree of practical applicability**, with a clearly defined specialization in **immuno-oncology** and **thoracic oncology**. The submitted publications demonstrate her ability to conduct

independent scientific research, critically evaluate contemporary scientific evidence, and successfully translate research findings into everyday clinical practice.

The candidate demonstrates an excellent understanding of current developments in Medical Oncology, actively participates in international scientific collaboration, and successfully introduces the achievements of modern oncology into routine clinical practice.

In my opinion, over the past several years Dr Zlatanova has established a **distinct and independent academic profile**. Her scientific interests are consistent, highly relevant, and of considerable societal importance, while her publications clearly demonstrate critical thinking, analytical skills, and a commitment to developing solutions with direct clinical applicability.

The candidate fulfills and, according to several indicators, **substantially exceeds the minimum national requirements** for appointment to the academic position of **Associate Professor**, as stipulated by the **Academic Staff Development Act in the Republic of Bulgaria** and its Implementing Regulations.

Based on all of the above, I give my unequivocally positive assessment of the candidate and strongly recommend that the esteemed Academic Jury elect Dr Tanya Lyubomirova Zlatanova, MD, PhD, to the academic position of Associate Professor in Higher Education Area 7 – Healthcare and Sports, Professional Field 7.1 – Medicine, scientific specialty “Oncology”, for the needs of the Clinic of Medical Oncology at Acibadem City Clinic University Hospital Tokuda EAD.

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Varna

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