

REVIEW

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Subject: Competition for appointment to the academic position of Associate Professor in the field of higher education 7. “Healthcare and Sports,” professional field 7.2. “Dental Medicine,” specialty “Periodontology and Diseases of the Oral Mucosa,” for the needs of the Department of Periodontology and Dental Implantology, Faculty of Dental Medicine, Medical University “Prof. Dr. Paraskev Stoyanov” – Varna.

Candidate: Tsvetalina Ivanova Gerova-Vatsova, DMD, PhD,

Chief Assistant Professor at the Department of Periodontology and Dental Implantology,
Faculty of Dental Medicine, Medical University – Varna.

The competition was announced in the State Gazette, Issue No. 50 of June 2, 2026.
The Scientific Jury was appointed by Order No. R-109-264 dated July 30, 2026, issued by
the Rector of the Medical University – Varna.

I. GENERAL PRESENTATION OF THE CANDIDATE

Dr. Tsvetalina Ivanova Gerova-Vatsova is a Doctor of Dental Medicine and a specialist in “Periodontology and Diseases of the Oral Mucosa.” The candidate was born on February 21, 1992, in the town of Novi Pazar. From 2011 to 2017, she completed a Master’s degree in Dental Medicine. From 2019 to 2023, she was a full-time doctoral student at the Department of Periodontology and Dental Implantology, Faculty of Dental Medicine, Medical University – Varna. The topic of her successfully defended doctoral dissertation was “Investigation of the Outcomes of the Application of Autologous Platelet-Rich Plasma in the Regenerative Treatment of Vertical Bone Defects.” In 2023, she was awarded the educational and scientific degree “Doctor” (PhD) in the doctoral program “Therapeutic Dentistry.” Between 2017 and 2023, Dr. Gerova-Vatsova obtained a specialty in “Periodontology and Diseases of the Oral Mucosa,” which contributed to

the advancement and deepening of her professional expertise in the field of periodontology.

Dr. Gerova-Vatsova began her professional career in 2017 as a Doctor of Dental Medicine. From 2017 to 2024, she successively held the position of Assistant Professor, and since 2024 she has been serving as Chief Assistant Professor at the Department of Periodontology and Dental Implantology, Faculty of Dental Medicine, Medical University – Varna. During the period 2023–2024, she also held the position of Administrative Assistant at the same department.

II. ANALYSIS OF THE SCIENTIFIC OUTPUT

The scientific output submitted by the candidate for participation in the competition includes one dissertation abstract, one monograph, 19 scientific articles, and numerous presentations at scientific forums, demonstrating substantial and diverse scientific activity.

Of the submitted scientific publications, 9 have been published in scientific journals referenced and indexed in internationally recognized databases of scientific information, while 10 have been published in non-indexed peer-reviewed scientific journals. The scientific works encompass original research studies, systematic reviews, clinical studies, and case reports, with research in the fields of periodontology and regenerative therapy predominating.

Quantitative presentation of the candidate's scientific output:

Type of Scientific Work	Number
Abstract of the Dissertation	1
Monograph	1
Publications in Peer-Reviewed and Indexed Journals	9
Publications in Non-Indexed Peer-Reviewed Journals	10

Under the criterion “Scientific Publications,” the candidate has achieved 464 points, which significantly exceeds the minimum scientometric requirements.

With regard to authorship, the candidate demonstrates active publication activity both through independent research and collaborative scientific works. Of the 19 works submitted, Dr. Gerova-Vatsova is the sole author of 7 publications – Nos. 1, 2, 3, 4, 5, 8, and 17; and the first author of 7 publications – Nos. 6, 10, 11, 15, 16, 18, and 19. In three publications, she is the third author – Nos. 12, 13, and 14, while in two publications she is the fourth author – Nos. 7 and 9. In a substantial proportion of her scientific output, the candidate occupies a leading authorship position, which is indicative of a significant personal contribution to the development and presentation of the research. Her participation as a co-author in interdisciplinary teams also demonstrates her ability to work collaboratively and contribute to broader scientific projects.

The main areas of the candidate's scientific research and publication activity are as follows:

1. Regenerative Periodontal Therapy – this is the leading and most extensively represented area of research. It includes studies on autologous platelet-rich plasma (PRP), enamel matrix derivatives (EMD), barrier collagen membranes, and combined regenerative approaches for the treatment of vertical/infrabony bone defects. The candidate's scientific work systematically investigates both the efficacy of individual regenerative methods and the possibilities for their combination and comparative evaluation. This area is represented by Publications Nos. 1, 2, 3, 4, 5, and 8, which address various aspects of regenerative periodontal therapy. These publications demonstrate a consistent development of the candidate's research interests – from investigating the effects of individual regenerative agents to the application and evaluation of combined therapeutic protocols for periodontal defects of varying clinical severity.

2. Bone Regeneration and Biomaterials – represented by a systematic review of chitosan-modified bone regenerative materials and a review of the histomorphometric assessment of bone regeneration. This area broadens the candidate's scientific profile to include the biological characteristics and regenerative potential of the materials used. This research area is represented by Publications Nos. 6 and 7.

3. Periodontal Surgery and Treatment of Complex Periodontal Defects – this area includes publications addressing contemporary approaches to the treatment of teeth with furcation defects and the management of severe generalized periodontitis. The

publications in this field demonstrate an effort to systematize diagnostic criteria and contemporary therapeutic approaches. This research area is represented by Publications Nos. 9, 15, and 18.

4. Periodontal Prevention and Diagnostics – a separate area of research is represented by studies on periodontal prevention and diagnostics, including the relationship between the O’Leary plaque index and the Ainamo and Bay gingival index, as well as the distribution of vertical bone defects according to age, sex, and anatomical location. This research area is represented by Publications Nos. 10 and 11. These publications contribute to a more comprehensive characterization of clinical parameters and risk factors associated with periodontal diseases.

5. Post-Extraction Changes in Alveolar Bone – the candidate’s scientific interests also encompass post-extraction changes in the alveolar bone. The publications in this area address vertical resorption of the alveolar ridge, the impact of smoking, and the role of local and systemic factors, with the studies based on clinical and CBCT assessments. These articles further enrich the candidate’s scientific profile by focusing on the dynamics and factors determining changes in bone tissues following dental extraction. This research area is represented by Publications Nos. 12, 13, and 14.

6. Other Clinical Aspects of Periodontology – represented by publications addressing periodontal abscesses, periodontal splinting, and the relationship between periodontal diseases and pregnancy. This research area is represented by Publications Nos. 16, 17, and 19, which demonstrate an interest in comprehensive clinical management and an individualized approach to various clinical situations in periodontology.

The candidate actively participates in a number of national and international scientific events.

Contributions Related to the Main Areas of the Scientific Works:

The candidate’s scientific contributions in the field of regenerative periodontal therapy are associated with the clinical and imaging-based investigation of various regenerative approaches for vertical bone defects. Data have been obtained on the efficacy of the individual application of autologous PRP, enamel matrix derivative, and a resorbable collagen barrier membrane, as well as of combined therapy with PRP and a

barrier membrane. A comparative evaluation of different regenerative protocols has been performed, with the results supporting the possibility of individualizing the therapeutic approach according to the characteristics of the bone defect.

A further contribution is the application of CBCT for the quantitative assessment of bone changes, in conjunction with clinical parameters. The practical applicability of these approaches in the comprehensive treatment of severe forms of generalized periodontitis has also been demonstrated.

In the field of bone regeneration and biomaterials, a systematic analysis of the current evidence on the biological properties of chitosan-modified bone regenerative materials has been conducted, demonstrating their beneficial effects in terms of osteogenic potential, biocompatibility, biodegradability, and antimicrobial properties. A further contribution is the investigation of alternative regenerative approaches without the use of bone regenerative materials, which have demonstrated favorable clinical outcomes in appropriately selected vertical bone defects. A systematic review of contemporary histomorphometric methods for the assessment of bone regeneration has also been presented, together with an outline of the limitations of the existing research protocols.

Additional contributions are evident in the submitted clinical and review papers addressing the management of oroantral communications, plaque control and prevention, and the significance of the classification of furcation defects. The clinical and pathogenetic characteristics of periodontal abscesses have been summarized, and the relationship between periodontal diseases and pregnancy has also been examined.

The scientific output presented is characterized by good thematic consistency, a combination of clinical research and systematic reviews, and a clear practical applicability.

III. EVALUATION OF THE HABILITATION WORK – MONOGRAPH

A particularly significant place in the candidate's scientific output is occupied by the monograph "Regenerative Periodontal Therapy," published by the Medical University – Varna in 2025. It is thematically directly related to the candidate's principal area of scientific research and provides a systematic overview of contemporary surgical techniques, biomaterials, and biological principles in regenerative periodontal therapy.

Contributions of the Monograph

The monograph makes a significant contribution to the field of regenerative periodontal therapy through a systematic review of contemporary regenerative materials, with particular emphasis on products available in Bulgaria and their potential applications in clinical practice. Innovative biomaterials are presented and analyzed, including NOVAMag resorbable magnesium barrier membranes and cortical laminar bone membranes, with consideration given to their main properties and applications in regenerative therapy. A significant theoretical contribution is the integration of osteoimmunological mechanisms into the understanding of bone remodeling and periodontal bone destruction through the RANK/RANKL/OPG system. Fundamental principles of surgical design and soft-tissue management aimed at achieving more predictable regenerative outcomes are formulated. The proposed clinical decision-making algorithm for regenerative periodontal therapy also has substantial practical value.

IV. CITATION OF THE CANDIDATE'S PUBLICATIONS IN NATIONAL AND INTERNATIONAL LITERATURE

The academic report provided by the Library of the Medical University – Varna confirms the presence of 12 citations, corresponding to 150 points, which exceeds the required minimum for this criterion.

V. EVALUATION OF TEACHING ACTIVITY AND TEACHING LOAD

Dr. Gerova-Vatsova has the required teaching experience in her specialty, acquired while holding the positions of Assistant Professor and Chief Assistant Professor at the Department of Periodontology and Dental Implantology. The total duration of her teaching experience exceeds the required five years. The teaching load report demonstrates that the candidate's average annual teaching load over the past eight years has been 233.9 hours, thereby meeting and exceeding the teaching load requirements stipulated in the Regulations for the Development of the Academic Staff of the Medical University – Varna.

VI. CONCLUSION

In summary, the professional and academic development of Dr. Tsvetalina Ivanova Gerova-Vatsova, MD, PhD, is consistently aligned with the profile of the announced competition for the academic position of Associate Professor. The scientific output presented, together with her teaching and clinical activities, demonstrates sustained professional development in the field of periodontology. I consider that her overall professional and academic activity meets the requirements for appointment to the academic position of Associate Professor.

Based on the established fulfillment of the minimum national requirements for scientific and teaching activities, as stipulated in the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of the Medical University – Varna, and taking into account the candidate's demonstrated scientific, teaching, and clinical contributions, I hereby express my positive assessment and support the appointment of Dr. Tsvetalina Ivanova Gerova-Vatsova, MD, PhD, to the academic position of Associate Professor in the field of higher education 7. "Healthcare and Sports," professional field 7.2. "Dental Medicine," specialty "Periodontology and Diseases of the Oral Mucosa," for the needs of the Department of Periodontology and Dental Implantology, Faculty of Dental Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna.

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