

REVIEW

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Regarding: the competition for the academic position of Associate Professor in the field of higher education 7. Health and Sports, professional field 7.1. Medicine, specialty Rheumatology, for the needs of the Faculty of Medicine, the Department of Cardiology and Rheumatology, and the Clinic of Rheumatology at St. Marina University Hospital – Varna, announced in the State Gazette, Issue No. 50 of June 2, 2026.

I. Information on the procedure

Pursuant to Rector's Order No. R-109-288/05.08.2026 of the Medical University of Varna and in accordance with the decision of the Scientific Jury recorded in Minutes No. 1/2026, I was appointed to prepare a review for the competition for the academic position of Associate Professor in the scientific specialty of Rheumatology. One candidate has applied for the position – Dr. Simona Bogdanova-Petrova, MD, PhD.

The present review has been prepared on the basis of the materials submitted for the competition, including the academic curriculum vitae, professional autobiography, scientific publications, monograph, statement of scientific contributions, and documents certifying the candidate's teaching and clinical activities. The evaluation has been conducted in accordance with the applicable requirements of the Academic Staff Development Act of the Republic of Bulgaria and the Regulations for Academic Staff Development of the Medical University of Varna.

II. Brief biographical information and professional development

Dr. Simona Bogdanova-Petrova graduated in Medicine from the Medical University of Varna in 2009. Since 2010, she has been working at the Department of Rheumatology, St. Marina University Hospital, Varna, and in 2017 she obtained her specialty in Rheumatology. In 2023, she was awarded the educational and scientific degree of Doctor (PhD) after successfully defending her doctoral dissertation entitled "Pain as Part of the Rheumatological Manifestations of COVID-19 Viral Infection." Her academic career began in 2015 with her appointment as an Assistant Professor, followed subsequently by promotion to the position of Chief Assistant Professor.

The candidate's professional career is characterized by sustained commitment to clinical practice, university teaching, and scientific research. The experience accumulated over the years provides a solid foundation for her appointment to the academic position of Associate Professor.

III. Teaching activity

According to the submitted certificate, as of 04.06.2026, Dr. Bogdanova-Petrova has 10 years, 8 months, and 12 days of teaching experience. The submitted report on her teaching workload demonstrates an average of 196.6 teaching hours per academic year during the period 2020/2021–2024/2025. These data indicate long-standing and consistent engagement in teaching activities, which I evaluate positively.

Her teaching responsibilities include practical classes and lectures in Rheumatology for medical students, participation in the teaching of Internal Medicine for dental students, as well as instruction of both Bulgarian- and English-language medical students. The candidate also participates in semester and state examination committees, contributes to the preparation of examination materials,

and is actively involved in the postgraduate training of resident physicians specializing in Rheumatology.

Dr. Bogdanova-Petrova's teaching activity is extensive, diverse, and well integrated with her clinical practice, reflecting her sustained commitment to medical education and professional development.

IV. Research Activity and Scientometric Indicators

The presented research output covers current issues in rheumatology and includes original clinical studies, data from real-world clinical practice, review articles, and scientific reports. The thematic diversity reflects the candidate's broad clinical interests and her commitment to linking scientific questions to the needs of daily rheumatology practice.

According to the academic record submitted, the candidate meets the minimum scientometric requirements for the academic position of "associate professor." Under indicator A1, the dissertation for the degree of "Doctor" is credited with 50 points, and under indicator B3, the habilitation thesis and monograph are credited with 100 points. For Group D, which includes scientific output under indicators 5–9, 286.81 points were awarded, and for Group E, which includes citations under indicators 10–12, 120 points were awarded.

Thirteen publications and papers in scientific journals, peer-reviewed and indexed in Scopus/Web of Science, were submitted for the competition, along with two publications in non-peer-reviewed scientific journals with scientific review. One full-text publication exceeding the minimum scientometric requirements was submitted separately. The author's contributions include 5 publications as first author, 2 of which are sole-authored; 6 as second author; and 6 as third or subsequent author.

I view both the quantitative indicators and the thematic focus of the presented work favorably. Of particular significance are the studies related to innovative therapies, systemic autoimmune diseases, and the results from real-world clinical practice, which have direct applicability in rheumatology.

V. Evaluation of the Habilitation Thesis—Monograph

As her habilitation thesis, the candidate presents the monograph "Pain, Mood, and the Relationship Between Them", published by Steno, Varna, 2025, 160 pages, ISBN 978-619-241-401-6.

The monograph examines pain as a complex biological, psychological, and social phenomenon and analyzes its relationship with mood, emotional state, and quality of life. It presents current data on neurobiological mechanisms, neuroimaging, genetic and epigenetic factors, as well as integrated approaches to treatment.

The work stands out for the timeliness of its subject matter, its well-structured organization, and its aim to provide a comprehensive presentation of the complex interrelationships between pain and the psycho-emotional state. Particularly valuable is the connection between theoretical frameworks and their significance for clinical practice.

By nature, the work is a review and a systematic synthesis. Its scientific value lies in the critical organization of a large volume of contemporary data within a unified conceptual framework and in its practical interpretation for clinical medicine. Its contribution is analytical, integrative, and applied.

I believe that this monograph is a valuable habilitation thesis that demonstrates a deep interest in the interdisciplinary aspects of pain and the ability to draw independent scientific conclusions.

VI. Main Areas of Research and Contributions

1. Pain and Rheumatological Manifestations in COVID-19

Research in this area is related to the candidate's dissertation and examines pain, rheumatological manifestations, and the psycho-emotional state in patients with COVID-19. The study analyzes the associations with inflammatory and thrombogenic markers, as well as the significance of age and gender. I commend the clinical focus of these studies, which contribute to a better understanding of pain syndrome in COVID-19 and to the identification of patients who require a more targeted assessment of pain and psychoemotional state.

2. Axial Spondyloarthritis, Psoriatic Arthritis, and Innovative Therapies

This section presents studies on the clinical and laboratory characteristics of spondyloarthritides, including ICAM-1 and VCAM-1 as potential markers of endothelial activation. The results from real-world clinical practice regarding treatment with JAK inhibitors, including upadacitinib, are discussed, as well as issues related to non-radiographic axial spondyloarthritis and vaccination coverage. This is one of the most significant areas covered in the presented material, as it combines clinical observations, evaluation of therapeutic outcomes, and practical issues related to safety and comprehensive patient care.

3. Systemic lupus erythematosus and other systemic diseases

The scientific output includes studies on treatment with belimumab, the assessment of disease activity, corticosteroid therapy, and the clinical significance of proteinuria. Review data on the use of intravenous immunoglobulins are also presented. Of particular note is the follow-up of patients with systemic lupus erythematosus, in which changes in the SELENA-SLEDAI score and maintenance corticosteroid therapy were analyzed. These studies have practical value and reflect an interest in optimizing the treatment and follow-up of patients with systemic autoimmune diseases.

4. Aortitis and Musculoskeletal Manifestations in Endocrine Diseases

The studies presented in this area address diagnostic and therapeutic challenges in rarer or interdisciplinary clinical conditions. They complement the main scientific areas and demonstrate a broad clinical perspective and interest in differential diagnosis in rheumatology.

5. Artificial Intelligence and Modern Diagnostic Approaches

This review article, dedicated to the application of artificial intelligence in imaging and laboratory diagnostics, presents current technological capabilities and their potential significance for rheumatology practice. I view the inclusion of this contemporary topic in the candidate's research interests positively. It demonstrates a commitment to keeping abreast of new diagnostic approaches and to integrating technological advances into clinical thinking.

In summary, Dr. Bogdanova-Petrova's scientific contributions are characterized by their relevance, clinical applicability, and thematic consistency. The presented body of work demonstrates an ability to participate in original clinical research, analyze results from real-world practice, and synthesize contemporary scientific data.

VII. Clinical and Diagnostic Activities

According to the certificate submitted, the candidate's total experience as a physician is 16 years, 4 months, and 21 days, and her experience as a rheumatologist is 10 years, 8 months, and 10 days.

Dr. Bogdanova-Petrova participates in the medical and diagnostic activities of the Rheumatology Clinic at the "St. Marina" University Hospital in Varna. The submitted materials reflect additional qualifications and participation in specialized activities related to joint ultrasound, capillaroscopy, diagnostic imaging, and clinical trials.

Her extensive clinical experience and work with patients with inflammatory and systemic rheumatic diseases represent a significant advantage for the candidate's academic work. These ensure a direct link between teaching, research interests, and the practical needs of patients. I view her professional commitment and her dedication to maintaining and expanding her clinical qualifications very positively.

VIII. Critical Comments and Recommendations

The scientific output presented is thematically diverse and includes original clinical studies, data from real-world clinical practice, and review articles. It demonstrates a sustained interest in current issues in rheumatology and combines research activities with clinically relevant questions.

As a guideline for future academic development, I would recommend continuing and expanding her own clinical research, including through participation in prospective and multicenter studies, as well as increasing the number of publications in which she is the lead author in internationally peer-reviewed journals. This would contribute to further establishing the candidate's independent scientific profile and enhancing the international visibility of her scientific output.

The recommendations outlined above are intended as guidelines for future development and do not alter my positive assessment of the scientific, teaching, and clinical work presented.

IX. Conclusion

Based on the submitted application materials and the evaluation conducted, I find that Dr. Simona Bogdanova-Petrova, M.D., meets the requirements for the academic position of "associate professor" in the scientific specialty of "Rheumatology."

The candidate has produced scientific work on current topics of clinical significance, a habilitation thesis with analytical and practical value, a long history of teaching, and significant professional experience in rheumatology. The scientometric indicators, as attested in the academic transcript, meet the minimum requirements for the competition.

I particularly commend the candidate's integration of research, teaching, and clinical work, as well as her consistent professional development. The submitted materials provide grounds for concluding

that Dr. Bogdanova-Petrova possesses the necessary scientific training, teaching experience, and clinical competence to hold the academic position.

On this basis, I give a POSITIVE evaluation of the candidacy and propose that the esteemed Scientific Jury vote in favor of appointing Dr. Simona Bogdanova-Petrova, M.D., in the scientific specialty of "Rheumatology," for the needs of MU-Varna.

Date: 8.09.2026

Varna

Reviewer: Assoc. Prof. Dr. Tanya Kirilova Shivacheva, M.D.

Signature: .

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