



REVIEW

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External Member of Scientific Jury according to Order № R-2383/11.07.2024 of the Vice

Rector scientific research activity of Medical University of Plovdiv

About a competition for the academic position "Professor" in "Rheumatology" in Medical University of Plovdiv, Department of Propaedeutics of Internal Diseases "Prof Dr Anton Mitov" for teaching in Bulgarian and English language - part-time (4 hours), announced in SG, issue 35/19.04.2024

I. Description of the materials submitted in the competition

The candidate for the academic position "Professor" in the scientific specialty "Rheumatology" is Assoc. Prof. Dr. Sevdalina Nikolova Lambova. The set of submitted documents and presented evidentiary materials meet the requirements of the Act for the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and additional requirements determined in the Regulations for Academic Development in Medical University of Plovdiv. The scientific works submitted for review have not been submitted in previous procedures for defense of a dissertation and for occupying academic positions.

II. Analysis of the candidate's career profile

Assoc. Prof. Dr. Sevdalina Lambova works in the Department of Propaedeutics of Internal Medicine "Prof. Dr. Anton Mitov" since her graduation as a physician for 20 years and for the period 2004-2007, she is a full-time PhD student in rheumatology at the Department and in the Clinic of Rheumatology, UMHAT "Sveti Georgi" - Plovdiv. The candidate's teaching experience is over 17 years. She has been an Assistant Professor since March 2007, and since February 2022 she has a habilitation and occupies the position "Associate Professor" in "Rheumatology". Assoc. Prof. Dr. Sevdalina Lambova has defended a PhD thesis in rheumatology in Germany (Justus Liebig University) in 2011, which was recognized by Medical University of Plovdiv in 2013. Assoc Prof. S. Lambova has undergone specialization

in rheumatology and internal medicine at the Rheumatology Clinic, UMHAT "Sveti Georgi", Plovdiv and has obtained two clinical specialties in rheumatology and internal medicine. Since 2016 until now she is Head of the Department in Rheumatology at MHAT "Sveti Mina" Plovdiv. Assoc. Prof. S. Lambova has a master degree in public health and health management. She has a good command of English (C1 level, Cambridge certificate) and German language (B2 level, Goethe Institute certificate). She is a member of the Bulgarian Rheumatology Society, Bulgarian Medical Society of Osteoporosis and Osteoarthritis, EULAR Study Group on Microcirculation in Rheumatic Diseases. She has experience as a reviewer and guest editor in the journals *Life* (Basel) and *Current Rheumatology Reviews*. In 2015, she has received the Rector's award for the best young scientist in Medical University of Plovdiv.

III. Evaluation of the candidate's scientific works

During her academic development, Assoc. Prof. Dr. Sevdalina Lambova is an author and a co-author of 77 full-text publications, including 67 indexed in Web of Science and/or Scopus. In the current competition for the academic position "Professor", Assoc. Prof. Dr. S. Lambova participates with 29 publications, of which 23 are in refereed journals, including 11 publications with impact factor. 14 scientific reports/abstracts from scientific forums that have been published in refereed journals are also presented. Publications and scientific abstracts are published after occupying the academic position "Associate Professor".

Assoc. Prof. Dr. Sevdalina Lambova works on several scientific topics i.e., the use of capillaroscopy in rheumatology, characteristics of microangiopathy in rheumatic diseases, modern therapeutic strategies in systemic connective tissue diseases, current aspects in the pathogenesis and treatment of osteoarthritis.

The topic on the use of capillaroscopy in rheumatology became the focus in the scientific works of Assoc. Prof. Dr. S. Lambova in her dissertation for awarding the educational and scientific degree "Doctor of Philosophy" and her first scientific publications. The long-term work on the topic of Assoc. Prof. Dr. S. Lambova after the defense of her dissertation led to the publication of two monographs in 2021 and 2024, which are the first for the country on the subject. Assoc. Prof. S. Lambova is the first author of the National Consensus on Capillaroscopy in Rheumatology of the Bulgarian Rheumatology Society (2021).

Assoc. Prof. S. Lambova is also an author and a co-author of two chapters of collective monographs:

- "Systemic sclerosis" (Lambova S, Mueller-Ladner U. In Ginsburg GS and Willard HF. Genomic and Personalized Medicine", Elsevier, 2019).

- "Treatment of Raynaud's phenomenon" (Lambova S. In Atta-ur-Rahman and M. Iqbal Choudhary, Frontiers in cardiovascular drug discovery. Bentham Science Publishers, 2020);

Current topic in the research work of Assoc. Prof. S. Lambova is the evaluation of capillaroscopic changes in undifferentiated connective tissue disease. The question is not well studied until now and there are no accepted classification criteria of the international rheumatology societies for the disease, which is also related to its heterogeneity. Based on candidate's own studies, an update of the currently used criteria for undifferentiated connective tissue disease in cases with Raynaud's phenomenon has been proposed.

A study that aimed to determine the diagnosis of early microangiopathy in patients with systemic sclerosis and undifferentiated connective tissue disease was performed for the first time with comparison of different capillary diameters in cases with early microangiopathy. It has been observed that early changes may affect both the apical part and the venous limb of the capillaries. The results were presented at the National Rheumatology Conference in 2024.

A comparative study of microvascular changes that fulfill the criteria for "scleroderma" and "scleroderma-like" microangiopathy in systemic sclerosis and other rheumatic diseases was performed for the first time. The observed similarities and differences are useful for the practice and improve the knowledge about the accurate interpretation of capillaroscopic findings in different rheumatic diseases.

Assoc. Prof. S. Lambova published original reports on detection of "scleroderma-like" type microangiopathy at the onset of other rheumatic diseases other than scleroderma, i.e., undifferentiated connective tissue disease and systemic lupus erythematosus. The results from the studies of Assoc Prof S. Lambova on the use of USB microscopes, which offer good quality of the capillaroscopic image in rheumatology practice at a lower price, are confirmatory in nature. The association of capillaroscopic changes with the immunological profile in systemic sclerosis and undifferentiated connective tissue disease was also evaluated.

The publications of Assoc. Prof. S. Lambova on the presence of "scleroderma-like" capillaroscopic pattern in patients with systemic lupus erythematosus (2013) and rheumatoid arthritis (2012) without the presence of overlap syndrome and without mandatory association with anti-RNP antibody are first in the international scientific literature. Later, a number of publications from other expert groups confirmed these observations.

Another topic of scientific research of Assoc. Prof. S. Lambova is the study of the clinical and laboratory characteristics of metabolic type knee osteoarthritis when comparing populations with osteoarthritis with and without obesity. New therapeutic strategies for osteoarthritis were evaluated in a mice model of osteoarthritis in a scientific project in collaboration with scientists from the Bulgarian Academy of Sciences and Paisii Hilendarski University of Plovdiv.

IV. Evaluation of the monograph of Assoc. Prof. Dr. Sevdalina Lambova

In 2024, Assoc. Prof. Dr. Sevdalina Lambova publishes a second monograph on the topic of capillaroscopy in rheumatology, entitled "Capillaroscopy in rheumatology - what else we have to know?". The scientific work is a continuation of the first monograph on the topic authored by Assoc. Prof. S. Lambova and published in 2021 - "Capillaroscopy in rheumatology - norm and pathology". In the first monograph, the main capillaroscopic parameters, the criteria for differentiation of norm and pathology in rheumatology and the characteristics of "scleroderma"/"scleroderma-like" type microangiopathy in rheumatic diseases have been defined. The second monograph includes 12 chapters, in which pathological capillaroscopic findings in the most common rheumatic diseases are discussed. The monograph is well illustrated with author's capillaroscopic images and represents a summary of the current knowledge and the author's own experience, making it a guide of high practical value for physicians, who use capillaroscopy. The monographs of Assoc. Prof. Sevdalina Lambova are the first editions in the country on the topic – the use of capillaroscopy in rheumatology that fill previously existing gap on this subject in the Bulgarian scientific literature and lays the foundations for theoretical training of practising specialists during their continuing education.

V. Citing the candidate's publications (publication image)

The total number of citations of Assoc. Prof. S. Lambova's publications according to the Scopus database is 840, excluding the self-citations of all co-authors, and her h-index is 14 (with a required h-index of 3 for occupying the academic position "Professor" according to the Regulations for Academic Development in Medical University of Plovdiv). In the current competition, Assoc. Prof. Dr. S. Lambova participates with 552 citations, for which a reference from the National Centre for Information and Documentation/NACID is attached. 533 of the presented citations are in journals indexed in Web of Science and/or Scopus databases and 19 are in monographs and textbooks with scientific reviewing.

VI. Complex, qualitative evaluation of the educational methodical and teaching activity

1. Teaching activity

Assoc. Prof. Dr. Sevdalina Lambova has over 17-year experience as a university lecturer in the Department of Propaedeutics of Internal Diseases, Medical University of Plovdiv (since March 2007). Since February 2022 until now she has habilitation and occupies the position "Associate Professor" in "Rheumatology". Assoc. Prof. Dr. S. Lambova holds two lecture courses in Internal Medicine for students in dental medicine in Bulgarian and English language as well as practical classes in "Rheumatology" for students in medicine and in "Internal diseases" for students in dental medicine in Bulgarian and English. The study load (lectures and practical classes) of Assoc. Prof. S. Lambova for the last two academic years exceeds the norm for habilitated lecturers in Medical University of Plovdiv by 80%.

2. Training of PhD students and trainees

Assoc. Prof. Dr. S. Lambova has been co-scientific advisor of two PhD students who have successfully defended their dissertations. In 2023, the dissertation of Dr. Martin Nikolov in Medical University of Pleven was defended on the topic "Effect of body composition on bone mineral density measured by whole-body DEXA". In 2024, the dissertation of Dr. Georgi Gelov in Medical University of Plovdiv was defended on the topic "Characteristics in the diagnostics and surgical treatment in patients aged > 70 years with acute cholecystitis". Assoc. Prof. S. Lambova is also a scientific supervisor of a full-time doctoral student currently studying at the Plovdiv MU, Dr. Sanie Dzhambazova. The topic of the dissertation is "Rheumatic diseases with peripheral vascular syndrome - associations of the capillaroscopic findings with the immunological profile and the therapeutic regimen". As Head of the Department in Rheumatology at MHAT "St. Mina" Plovdiv, Assoc. Prof. S. Lambova is a supervisor of trainees in rheumatology.

3. Participation in a university textbook

Assoc. Prof. S. Lambova is a co-author of the "Rheumatology" section of a textbook on propaedeutics of internal diseases in English (Textbook of Propedeutics of Internal Diseases - Basic Principles of Physical Examination; Publisher - Medical University - Plovdiv, 2013; ISBN 978-619-7085-01-3). The section includes chapters on - symptoms and syndromes in patients with rheumatic diseases, investigations used in rheumatology, and most common rheumatic diseases as follows:

- Symptoms and investigations of the skeletal system;
- Diseases of the Skeletal System: Rheumatoid arthritis;
- Psoriatic arthritis;
- Ankylosing Spondylitis;
- Systemic lupus erythematosus;
- Systemic sclerosis;
- Polymyositis, Dermatomyositis;
- Osteoarthritis;
- Gout.

4. Project activity and participation in the activity of professional organizations

4.1. Participation in projects

Documents for participation of Assoc. Prof. S. Lambova in the following projects are presented:

- national scientific project funded by the Bulgarian National Science Fund, Ministry of Education and Science/MES - KP-06-N-33/9 "Diagnostic and prognostic value of new biomarkers in osteoarthritis and potential for disease-modifying therapeutic interventions";
- educational project BG05M2OP001-2.013-0001 "Student practices" - phase 2;
- international scientific project - COST Action CA21122 "PRoMoting GeRiAtric Medicine IN countries where it is still eMerGing";
- international scientific project COST Action CA20104 "Network on evidence-based physical activity in old age".

4.2. Participation in the activity of professional organizations

Assoc. Prof. Dr. Sevdalina Lambova is a member of the Bulgarian Rheumatology Society and the Bulgarian Medical Society of Osteoporosis and Osteoarthritis and actively participates as a lecturer in national scientific forums. She leads a workshop on "Capillaroscopy" (2020 - 2023) as part of the regular program of the national conferences and congresses of the Bulgarian Rheumatology Society. She takes part in the organizing committee and as a lecturer of an upcoming course in capillaroscopy (September 2024) organized by the Bulgarian Rheumatology Society and approved by EULAR. Assoc. Prof. S. Lambova is a member of EULAR Study Group on Microcirculation in Rheumatic Diseases and a co-author of a module of EULAR on-line course in capillaroscopy. She has experience as a guest editor in the journals Current Rheumatology Reviews and Life (Basel), as well as a reviewer in scientific journals.

VII. Overall assessment of the applicant's compliance with the minimum requirements according to the Regulations for Academic Development in Medical University of Plovdiv for occupying the academic position "Professor"

Assoc. Prof. S. Lambova meets the mandatory national and additional criteria in the respective groups of indicators according to the Regulations for Academic Development of Medical University of Plovdiv, as can be seen in the attached table.

Groups of indicators	Indicators, including mandatory requirements for occupying the academic position "Professor" in Medical University of Plovdiv	Points	Assoc. Prof. Dr. S. Lambova
A	Educational and scientific degree "Doctor of Philosophy"	50 points	50 points
C	Habilitation work - monograph	100 points	100 points
D	5-9 <i>Mandatory requirements: 15 publications, of which 10 indexed in Web of Science and/or Scopus, including 5 with IF</i>	250 points	1325.2 points 29 publications, of which 23 indexed in Web of Science and/or Scopus and 11 with IF <i>Mandatory requirements - fulfilled</i>
E	<i>Mandatory 15 citations in journals indexed in Scopus and/or Web of Science</i>	300 points	8185 points <i>533 citations in journals indexed in Scopus and/or Web of Science</i>
F	<i>Mandatory requirements:</i> - 2 PhD students with successfully defended dissertations - 1 scientific project - 1 textbook/manual	140 points	223.1 points <i>Mandatory requirements - fulfilled</i>
G	Study load (lectures and practical classes)	200 points	720 points
	Academic position	200 points	225 points
Total score:		1 240	10 828.3

VIII. Conclusion

In conclusion, the scientific works presented by Assoc. Prof. Dr. S. Lambova fulfill the national and additional requirements in Medical University of Plovdiv for occupying the academic position "Professor" in the scientific specialty "Rheumatology". Assoc. Prof. S. Lambova has original results of her scientific studies with significant scientific and practical value and considerable scientific research, clinical and teaching experience. Assoc. Prof. S. Lambova fulfills the requirements for occupying the academic position "Professor" in the scientific specialty "Rheumatology" according to the Act for the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the additional requirements determined in the Regulations for Academic Development in Medical University of Plovdiv. Based on this, I give my positive assessment for Assoc. Prof. Sevdalina Lambova for occupying the academic position "Professor" in the scientific specialty "Rheumatology".

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