

Посветени на хуманността
МЕДИЦИНСКИ УНИВЕРСИТЕТ – ПЛОВДИВ
4002 Пловдив
бул. В. Априлов № 15А
номератор: 032 60 22 11



Dedicated to humanity
MEDICAL UNIVERSITY – PLOVDIV
15A, Vassil Aprilov Blvd.
4002 Plovdiv, Bulgaria
exchange: 00359 32 60 22 11

Department of Imaging Diagnostics

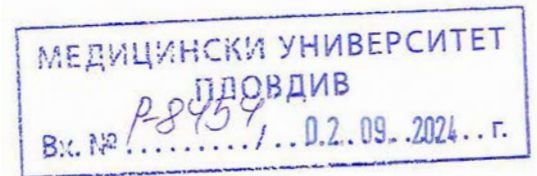
4002 Plovdiv Blvd. B. Aprilov 15A
Tel: 032 60 22 14
imaging.diagnostics@mf.mu-plovdiv.bg



Department of Diagnostic Imaging

15A V. Aprilov blvd, 4002 Plovdiv
phone: 00359 32 60 22 14
imaging.diagnostics@mf.mu-plovdiv.bg

To
The Chair of the Scientific Jury,
Determined by Order No. R - 2383/11.07.2024.
of Vice-Rector SRA of Medical University - Plovdiv
According to Order № P -3580/05.12.2023.
Bldv. B. Aprilov №15A
4002 Plovdiv



To your Protocol No. 1 / of 18.07.2024

Please find attached: REVIEW

for competition for an academic position: 'PROFESSOR'
in scientific specialty "Rheumatology"

announced for the needs of MU-Plovdiv, Dept. "Propedeutics of Internal Diseases "Prof. Dr. Anton Mitov" in the State Gazette, issue 35/19.April.2024.

Reviewer: Prof. Dr. Silvia Bogdanova Tsvetkova-Trichkova, PhD

Professional field: 7.1 Medicine

Scientific specialty: Diagnostic imaging

Institution: Medical University - Plovdiv

Address and contacts:

Mailing address: Medical University of Plovdiv, Department of Diagnostic Imaging
Bldv. B. Aprilov, 15A

E-mail address:

Phones: +359 32 60 22 11

Заличено на основание
Чл.5 §1, б. "В" Регламент (ЕС)2016/679

REVIEW

For the candidate **Assoc. Prof. Dr. Rositsa Valerieva Karalilova, DMSc**

I. Analysis of the candidate's career profile.

Assoc.prof. dr. Rositsa Valerieva Karalilova, DMSc completed her secondary education at the Humanitarian Secondary School "St. St. Kiril and Methodius" in Plovdiv with German and English languages with excellent grades. She graduated as a doctor in 2005 at the Medical University - Plovdiv with full honors in the state exams. She started her medical practice in the same year at the Clinic of Rheumatology of the University Hospital "Kaspela" in Plovdiv. In 2014 she acquired a clinical specialty in Rheumatology. At the time of the announcement of the competition (April 2024) she has 18 years and 6 months (eighteen years and six months) of medical experience.

In 2013, after a successful competition, Assoc.prof. Karalilova was appointed to the position of Assistant Professor at the Department Propedeutics of Internal Diseases , and in the following years she has successively passed through all stages of her career development - since 2018 after a competition she has held the position of Chief Assistant Professor at the Department. Since the same year and currently, she also holds the position of **Chief Administrative Assistant** and is responsible for the educational activities at the Department. Since Jan.2022 she is an Associate Professor in the same Department.

In 2018 she successfully defended her dissertation on "Diagnostic possibilities of new ultrasonographic techniques for the assessment of skin, joint, periarticular and pulmonary involvement in Systemic Sclerosis" and obtained a **PhD**. In 2021, after a successful defense of her dissertation entitled "Imaging and serum biomarkers of pulmonary and joint involvement in patients with Systemic Sclerosis", she obtained a **Doctor of Medical Sciences degree**.

Assoc. Prof. Karalilova temporarily was holding the position of **Head of the Department of Physical and Rehabilitation Medicine** in the period June-September 2023.

The organizational qualities of the candidate are highly appreciated and since January 2024 she is a **Vice-Dean of Educational Activities** at the Medical Faculty of Medical University - Plovdiv.

Assoc.prof.Karalilova underwent a number of international courses in musculoskeletal ultrasonography (Graz, Rome, Madrid, Leeds) and holds the European Alliance of Rheumatology Associations (EULAR) qualification for Ultrasound Trainers in Rheumatology, and since 2017 is a

certified European trainer in musculoskeletal ultrasonography; qualification in capillaroscopy (level 2) (Genoa, Italy) under the auspices of EULAR.

Assoc.prof. Karalilova is a member of a number of international and national organizations. She is a member of the Bulgarian Rheumatological Society, the Board of the Bulgarian Association of Musculoskeletal Ultrasound (BAMSU), and since 2023 she has been its **President**. She is a member of the Faculty Council of the Faculty of Medicine at the Medical University - Plovdiv. He is **the head of** an international working group of the COST Action on Osteoarthritis of the European Programme for Cooperation in Science and Technology. She is a member of the OMERACT (Outcome Measures in Rheumatology), TUI (Targeted Ultrasound Initiative), EUSTAR groups - an international scleroderma research network operating under the auspices of the World Scleroderma Foundation and the European Alliance of Rheumatology Associations EULAR. She has been involved in numerous intra-university and international projects and initiatives, of which the 8 presented for the purposes of this competition are international.

II. General description of the materials submitted to the competition.

The candidate Assoc. Prof. Karalilova has submitted a complete set of documents on paper/electronic media in accordance with Article 120 of Section V of the Regulations for Academic Development at MU-Plovdiv. The supporting material includes CV in European format; copy of the diploma of higher education with an annex; copy of the diploma of the PhD degree in the scientific specialty of rheumatology and copy of the diploma of the DMSc degree in the scientific specialty of rheumatology; certificate of experience in the relevant specialty and a reference of the academic positions held so far; academic transcript of the teaching load; copy of the last attestation sheet; abstract of dissertation for PhD; abstract of dissertation for DMSc; habilitation thesis - monograph; list of publications in scientific journals, refereed and indexed only in Scopus and/or Web of Science; List of publications in non-peer-reviewed journals with scientific peer review; List of citations and/or reviews in scientific journals, peer-reviewed and indexed only in Scopus and/or Web of Science with evidence from databases; List of citations in monographs and collective volumes with scientific peer review; List of citations and/or reviews in non-refereed journals with scientific resume; Copy of diploma for recognized specialty; Document certifying *participation* in an international scientific/educational project; Document certifying *supervision of* an international scientific/educational project; Participation in the publication of a university textbook in Bulgarian and English; Documents certifying training of trainees, postgraduate students and doctoral students issued by the relevant

departments of the university/research organization; reference of the original scientific contributions with supporting material; self-assessment report on the fulfillment of the specific scientific-metric requirements in the main units of MU - Plovdiv; declaration of originality and authenticity of the attached documents; copies and summaries of the submitted publications in Bulgarian and English; other documents - qualification courses, certificates, memberships, etc., related to teaching, research, related to administrative activities; participation and membership in scientific forums, committees. Article 120 item 35 has also been complied with given the purpose of the competition and for English language training.

All the documents meet the requirements of the LDASRB and the Regulations for its implementation in MU - Plovdiv.

II. Evaluation of the candidate's scientific works for the overall academic development.

The research and publication activity of Assoc.prof. P. Karalilova is of high value. For the current competition she has **24 full-text** publications in scientific journals, refereed and indexed in **Scopus and/or Web of Science**, as well as **6** full-text publications in **non-refereed** journals with scientific peer review, participation in the writing of a **university textbook**, one **independent monograph**.

The scientific developments are multifaceted and include the study of current problems in patients with Inflammatory Joint Diseases, Systemic Sclerosis and other systemic connective tissue diseases, Systemic Vasculitis, Osteoporosis, Osteoarthritis. Much of the work has focused on Systemic Sclerosis, which has been a major and long-standing interest, resulting in the both defended dissertations. Another leading place in the scientific activity is occupied by the application of musculoskeletal ultrasonography as an imaging biomarker in the process of diagnosis, differential diagnosis, and monitoring of patients with rheumatic diseases, including objective assessment of the effectiveness of applied therapy using this imaging modality. Correlations between serum and imaging biomarkers in various rheumatic diseases have been studied and analyzed for epigenetic processes and mechanisms in systemic sclerosis. Ultrasonography of both articular and periarticular structures has been evaluated in inflammatory joint diseases, systemic connective tissue diseases and osteoarthritis, as well as extra-articular applications of musculoskeletal ultrasonography such as ultrasonographic evaluation of pulmonary involvement in rheumatic diseases, elastographic evaluation of the skin, salivary gland ultrasonography in Sjögren's syndrome, for evaluation of vascular involvement in systemic vasculitis and Rheumatic Polymyalgia. The multifaceted research interests result in

collaborative work by interdisciplinary teams, which is undeniable evidence of the ability of Assoc. Prof. Karalilova for teamwork. Many of the scientific works have resulted in a number of publications in prestigious international journals such as Annals of Rheumatic diseases - a leading Rheumatology journal (Impact Factor (JCR) - 20.3; Impact Factor rank (JCR) - 2/57; Citescore - 35), which is an undeniable attestation of the importance and contribution of this scientific output.

Assoc. Prof. Karalilova, DMSc presented participation in **8 international scientific projects** with subsequent publications in highly rated international journals as well as in national ones.

She is the leader of 1 international project.

So far, the candidate has supervised **2** PhD students who have successfully defended their dissertation and is currently supervising **5** PhD students at different stages of their dissertation.

Based on her research, the candidate has formulated her international and national contributions to medical science in a number of areas - ultrasonography, biomarkers, lung ultrasonography, elastography, inflammatory joint disease, osteoporosis and osteoarthritis, supported by evidence. A number of the results presented are innovative.

IV. Evaluation of the monographic work or equivalent publications submitted by the candidate for the competition for AP "PROFESSOR".

Assoc. Prof. Karalilova presents her monograph "Ultrasonographic Phenotypes in Osteoarthritis", published in 2024 with ISBN 978-619-237-134-0. The monograph presents in detail the achievements of medical science in the field of osteoarthritis and presents a modern approach to the diagnosis and treatment of this group of diseases. The problem of the treatment of this disease is extremely topical because of the staggering lack of effective disease-modifying therapy in the face of the extraordinary progress of medical science and the great therapeutic possibilities in other diseases. This necessitates precise phenotyping and subsequent stratification of patients in order to apply the principles of precision medicine. Analyzing the place of different imaging modalities in this disease, Assoc. Karalilova also presents her own study on the application of Ultrasonography in Osteoarthritis, which is a contribution to medical science. Ultrasonography in the hands of an experienced specialist is an indispensable imaging marker that has the ability to characterize the hyaline and fibrocartilage, subchondral bone, including the bone surface for erosions and osteophytes; intra- and extra-articular soft tissues - meniscal changes, ligaments, tendons, capsule, entheses, muscles, bursae; intra-articular changes - synovitis, effusion, Baker's cysts. Therefore, characterizing the ultrasonographic phenotype

at a given time point in the evolution of the disease in any particular clinical phenotype of OA will directly influence the therapeutic decision. The literature review is comprehensive and contemporary.

This monograph will be a useful tool and will help many physicians of various specialties to enrich their knowledge of the capabilities of the Ultrasonographic technique in these rheumatic diseases.

V. Reflection (citation) of the candidate's publications in national and foreign literature (publication image).

For the purposes of this competition, the candidate has submitted **192** citations, of which **184** citations in scientific journals, refereed and indexed in world-renowned databases with scientific information and **1** citation in a foreign monograph with scientific peer review, which eloquently proves the quality of scientific production and the evaluation by foreign scientists. In addition, it also provides **7** citations in non-refereed peer-reviewed journals. The candidate has Hirsh index -9, reflected in Scopus and official reference.

VI. Complex, qualitative evaluation of the teaching and learning activities, including scientific guidance of students, doctoral students, postgraduate students.

According to the provided Academic reference for the Teaching workload of units with diagnostic/treatment activity, the total workload for Assoc. Prof. Karalilova for the last three academic years amounts to **5458,1 hours**. Teaching activities with students include practical exercises and lectures in Bulgarian and English on "Propedeutics of Internal Diseases", "Rheumatology", "Internal Diseases" for students of Medicine, Dentistry, as well as practical exercises and lectures for students of the specialties Nurse, Midwife, Physician Assistant.

Assoc. Prof. Karalilova actively participates in the training of trainee doctors and postgraduate students from the clinical specialties of Internal and General Medicine, as well as in the training of students and lecturers from the International Exchange, Erasmus+ program.

She is a member of the examination committees for semester examinations of Bulgarian- and English-speaking students of Medicine, semester examination in Internal Medicine for students of FPH, competitive examinations for full-time PhD students at MU-Plovdiv, for enrollment in the specialty of Rheumatology, in committees for colloquia in Rheumatology, Internal Medicine, as well as in the commission for the examination for the PhD minimum in Rheumatology, participation in the

examination commission of the State Examination for the Specialty "Rheumatology", in the scientific jury for the awarding of the scientific degree "Doctor" of the National Academy of Sciences, Doctor of Sciences" in Rheumatology, in the Commission for the Academic Position „Assistant Professor", „Principal Assistant Professor" in Rheumatology, in the scientific jury in the competition for the acquisition of the AP „Associate Professor" and AP "Professor". Assoc. Prof. Karalilova has been appointed as the Chairperson of the Committee on Teaching of the Faculty of Medicine, Medical University - Plovdiv.

Assoc. Prof. Karalilova conducts qualification courses in Musculoskeletal Ultrasonography for specialists and postgraduates in rheumatology, dermatology, orthopedics, physiotherapy and Capillaroscopy for rheumatologists, dermatologists. With the orders of the Governor of Kaspela University Hospital, she has been appointed as the Supervisor of the practical specialization of 3 postgraduate students in Rheumatology.

Collaborative work with students, postgraduate students and PhD students, including intra-university projects with students and PhD students has led to 69 scientific publications in refereed and non-refereed scientific journals, participation in national and international scientific forums, which shows the potential for creating a school of young scientists under the leadership of Assoc. Karalilova.

The attestation indicators from the applicant's last attestation sheet determine a **very good attestation score**.

VII. Critical comments and recommendations.

I have no critical remarks and recommendations.

VIII. General assessment of the applicant's compliance with the minimum national requirements under Article 2b, paragraphs 2 and 3, respectively the requirements under Article 2b, paragraph 5 of the RAADB and the requirements specific to MU - Plovdiv by fields and for units with clinical activity.

REQUIRED MINIMUM SCIENTIFIC INDICATORS OF MU-PLOVDIV FOR AREA 7.1.MEDICINE (medico-clinical)

GROUP OF INDICATORS	CONTENTS	JSC "PROFESSOR" (points)	Assoc. R. Karalilova, MD (points)
A	Indicator 1 Dissertation for the award of educational and scientific degree "Doctor"	50	50
B	Indicator 2 Dissertation for the degree of Doctor of Science	100	100
B	Indicator 3 and 4 Habilitation thesis - monograph	100	100
Г	Sum of indicators 5 to 9 Publications and reports published in scientific journals, refereed and indexed in world-known databases of scientific information, as well as in non-refereed peer-reviewed journals	250 15 articles, of which 10 in journals refereed in Scopus and/or Web of Science, including 5 articles with IF	257,49 29 articles, of which 24 in journals refereed in Scopus and/or Web of Science, including 20 with IF
Д	Sum of indicators 10 to 12 Citations in scientific publications, refereed and indexed in world-renowned databases, in monographs and collective volumes, in non-refereed peer-reviewed journals	300 15 citations in Scopus and/or Web of Science refereed journals	2805 184 in journals, / Scopus and/or Web of Science/, 1 in monograph 7 in unrefereed

GROUP OF INDICATORS	CONTENTS	JSC "PROFESSOR" (points)	Assoc. R. Karalilova, MD (points)
E	Sum of factors 13 to 22 Supervision of a successfully defended PhD student, Participation in an international scientific project, Supervision of an international scientific project, Published university textbook, Training of interns, postgraduate students and PhD students	140 - 2 defended PhD students - 1 research project -1 textbook / textbook	917,96
Ж	Teaching and Academic position	400 200 + 200 т.	1116 916 + 200
GENERAL:		1240	5346,45

As a conclusion, Assoc. Prof. Dr. Rositsa Karalilova, DMSc presents evidence for a total of 5346,45 points against the minimum required 1240 points, which significantly exceeds the minimum required criteria according to the regulations of the Medical University of Plovdiv.

IX. Conclusion

Assoc. Prof. Karalilova, DMSc is an established specialist, ambitious scientist and lecturer with a keen interest in scientific work. Her scientific works are original and have excellent citation. She is a recognizable name in national and international scientific organizations related to the specialty of Rheumatology. From the thorough analysis of the materials submitted for the competition, it is evident that the candidate meets and exceeds many times not only the minimum national requirements, but also the specific requirements of the Medical University, Plovdiv.

On the basis of the above, I confidently give my **POSITIVE** vote and strongly recommend the members of the Honorable Scientific Jury to vote **FOR** the award of **Assoc. Prof. Rositsa Valerieva Karalilova, DMSc to the academic position of "Professor" in the field of higher education 7.**

**"Health and Sport", in the professional field 7.1. "Medicine" and scientific specialty :
"Rheumatology", for the needs of MU-Plovdiv, MF, Department of Propedeutics of Internal
Diseases.**

31.08.2024 г.

Plovdiv

Reviewer:

Prof. Dr. Silya Tsvetkova-Trichkova, PhD

Заличено на основание
Чл.5 §1, б. "В" Регламент (ЕС)2016/679