

REVIEW

Corresponding Member Prof. Hristina Grupcheva, MD, PhD, DSc, FEBO, FICO (Hon), FBCLA,
FIACLE,
Head of the Ocular Diseases and Vision Sciences Department,
Deputy Rector "Scientific Activity"
Medical University "Prof. Dr. Paraskev Stoyanov" – Varna

**Member of the Scientific Jury according to Order № R-109-139/ 23.02.2023 of the Rector of
the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna**

Subject: Competition for the academic position "*Associate Professor*" in the field of higher education "7. Health care and sports", professional direction "7.1. Medicine", in the "*Ocular Diseases*" specialty for the needs of the "Medical Optician", Medical College – Varna at the "Prof. Dr. Paraskev Stoyanov" – Varna, published in SG № 102/ 23.12.2022.

One candidate participated in the announced competition – Chief Assistant Professor Mladena Nikolaeva Radeva, MD, PhD.

The candidate has precisely submitted all necessary documents for participation in the competition, corresponding to the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Rules for its Application and the Rules for the Development of the Academic Staff of the Medical University – Varna.

According to Protocol № 1/ 06.03.2023 from the first Scientific Jury audience, I have been assigned to prepare a review on the procedure for occupying the academic position "Associate Professor".

Candidate's career profile

Dr. Mladena Radeva, MD, PhD graduated with honors and awards from the Medical University – Varna in 2015. After acquiring the specialty "Ocular Diseases" at the "Specialized Hospital for Eye Diseases for Active Treatment", Varna, in 2019 she proceeds in upgrading her postgraduate development in MU-Varna. In 2020 she obtained a master's degree in the specialty "Health Management and Medico-Social Care". In 2020 she defended her doctoral dissertation on the topic: "Possibilities for microstructural analysis and assessment of damage to the anterior eye surface from ultraviolet rays with natural and artificial origin". In the same year, after a competition, she took the position of "Chief Assistant Professor" in the Ocular Diseases and Vision Sciences Department.

In 2019 she is included in the authoritative sample "Doctors we trust" from the selection list of medical specialists of the "24 Hours" newspaper, and the Bulgarian Glaucoma Association awards her the prestigious "Young Scientist" award.

Dr. Mladena Radeva, MD, PhD participated in numerous international training courses: EGS Glaucoma Specialist Course in Mainz, Germany; one-month specialization in EBO program at "Ramon y Cajal" University Hospital, Madrid, Spain; oculoplastic course under the aegis of "IMO", Barcelona, Spain; refractive surgery course "Curso refrativa", Rio de Janeiro, Brazil, as well as a seminar at the Open Medical Institute, Salzburg, Austria. Her continuing education in Bulgaria include: "Ultrasound diagnostics in ophthalmology", "Anterior ocular surface", "Amniotic membrane", "Strabology", "Vitreous body and retinal surgery", "Lasers in ophthalmology".

She is a member of professional and scientific Bulgarian and international organizations, including Bulgarian Society of Ophthalmology, Union of Scientists in Bulgaria, Bulgarian Medical Association and European Board of Ophthalmology.

She uses English and Spanish fluently in her professional and research activities.

General characterization of the candidate's research and scientific-applied activity

The publications and references submitted for participation in the competition prove the high quality and recognition of the candidate's scientific productivity on an international scale.

Dr. Mladena Radeva, MD, PhD applied for the competition with her scientific production covering and in some indicators significantly exceeding the minimum scientometric requirements of the Medical University – Varna.

A total of **20** scientific works were submitted for participation in the competition – actual publications (18 full-text), **17** of which (including a habilitation thesis) are included as evidentiary material in the reference for the fulfillment of the minimum requirements for holding the academic position "Associate Professor", according to LDASRB (Law on the Development of the Academic Staff of the Republic of Bulgaria) since 2018. In addition, **3** full-text publications are presented apart from the evidentiary material for fulfilling the minimum requirements for holding the academic position "Associate Professor".

The scientific works submitted for the competition were published in 2012-2022 and are distributed as follows:

- 1 monographic (habilitation) work – "Meibomian glands – norm and pathology", 2022;
- 5 publications in scientific journals, referenced and indexed in world-renowned databases with scientific information (of which 3 full-text and 2 abstracts);
- 12 publications in non-refereed journals with scientific review in Bulgarian and English;
- 3 publications apart from the evidentiary material for fulfilling the minimum requirements for holding the academic position "Associate Professor", published in non-referred journals with scientific review.

All publications are correctly described and attached in full-size electronic format to the competition materials.

Additionally, the applicant provides information on 3 more full-text publications, which are not subject to review for this competition, related to the acquisition of her PhD.

The works have been published in renowned scientific publications abroad and in our country, such as: *Contact Lens & Anterior Eye; Ocular Surface; Investigative Ophthalmology & Visual Science; International Journal of Innovative Trends in Engineering; Turkiya Klinikleri Journal of Ophthalmology; Bulgarian Review of Ophthalmology; Glaucoma; Scripta Scientifica Medica; GPNews; Journal of the Union of Scientists – Varna (Section Medicine and Ecology); Varna Medical Forum.*

Her active participation in scientific forums also contributes to the good visibility of Dr. Mladena Radeva's scientific work. Information and evidence has been provided for the following participations:

- Achievements and Perspectives in Ophthalmology, BSO, October 28-30, 2022, Borovets, Bulgaria "The Hidden Threat" – with an award named after Prof. Dubov;
- XX Jubilee Pediatric Conference, September 2, 2022, Burgas, Bulgaria: "Children's eye health and technologies";
- XX Symposium of the Bulgarian Glaucoma Society: March 2022, Sofia, Bulgaria: "Glaucoma and Nutrition";
- XIV National Congress of BSO together with "News in Ophthalmology" Conference and XV Vitreoretinal Symposium, October 14-17, 2021, Borovets, Bulgaria: "Microstructural analysis of the UV light impact on the ocular surface";
- 6th Audio-vestibology and Otology Days with international participation – Online symposium, "Modern interdisciplinary approach and collaboration in the diagnosis of audio-vestibular pathology", September 17-18, 2021, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna, Bulgaria;
- 19th Black Sea Ophthalmological Society Congress, September 24-26, 2021 Chisinau, Republic of Moldova, online;
- When FFA is not an option – Zeiss Academy "Contemporary OCT applications in ophthalmology", November 9, 2019, Veliko Tarnovo, Bulgaria;
- Sleep apnea and dry eye – contemporary options, Third international conference on obstructive sleep apnea and snoring, October 6, 2018, St. St. Constantine and Elena Resort;
- XVII Symposium of the Bulgarian Glaucoma Society, March 22-23, 2019, Plovdiv, Bulgaria: "Skills and habits of young ophthalmologists for the diagnosis of glaucomas" – received the "Young Scientist of the BGS" award;
- Conference "News in Ophthalmology 2018 | Cataract – Refractive aspects", November 23-25, 2018, Pravets, Bulgaria: "Microstructural analysis of the impact of sunlight on the anterior ocular surface";

- Conference “News in Ophthalmology 2018 | Cataract – Refractive aspects”, November 23-25, 2018, Pravets, Bulgaria “Opportunities for young Bulgarian ophthalmologists – Who? What? Where? When? How? and Why?”;
- Conference “News in Ophthalmology 2018 | Cataract – Refractive Aspects”, November 23-25, 2018, Pravets, Bulgaria: “Contemporary options for myopia control with progressive contact lenses with a distant design”;
- Oto Rhino Laryngology International meeting; 3, 2017, vol. 13, ISSN 1312-6997: “Structural damage of the conjunctiva after UV exposure – insight by in vivo confocal microscopy”;
- Black Sea Symposium for young scientists April 6-9, 2017, Medical University – Varna: “Iridocyclectomy for ciliary body melanoma – unique approach and surprising result”;
- Barcelona Oculoplastics (B)OC, held at IMO Grupo, Miranza Barcelona, on April 22-23, 2022, Spain;
- Neuroscience – what about the retina (virtual meeting), December 4, 2020;
- 3rd International Symposium of Scientific Journals of Trakya University “How to become Successful Authors & Editors of Scientific Journals”, December 4-6, 2018;
- The 36th Congress of the European Society of Cataract and Refractive Surgeons (ESCRS), September 22-26, 2018, Vienna, Austria;
- World Ophthalmology Congress (WOC), June 16-19, 2018, Barcelona, Spain;
- XVII Symposium of the National Glaucoma Association, March 16, 2018, Sofia, Bulgaria;
- Meeting of the Scientists Union – Varna, “Medicine and Ecology” Series, October 27, 2017, part of the “Science Month”, Varna 2017: Final Conference – “Science in the service of society – 2017”;
- First international black sea otology and neuro-otology symposium, third vestibular days of Varna, Varna, Bulgaria, September 1-2, 2017;
- BSYSB 06-09.04.2017, Varma, Bulgaria; Scripta Scientifica Vox Studentum ISSN 2535-0471;
- XIV National Glaucoma Association Symposium, March 18-19, 2016, “Secondary GlaucomaS. Congenital Glaucoma”, Sofia, Bulgaria;
- COST Summer Training School – June 2016, MU-Varna, Varna, Bulgaria;
- Symposium of the Bulgarian Glaucoma Society – News in Ophthalmology, November 27-29, 2015, Pravets, Bulgaria.

The scientific research activity and scientific contributions of Chief Assistant Professor Mladena Radeva, MD, PhD are in the scientific specialty field of the announced competition. They can be clustered into the following thematic areas:

1. Study of the effect of ultraviolet light on the eye analyzer;
2. Microstructural analysis of the ocular surface;
3. Diagnosis and treatment of glaucoma;
4. Children’s vision – prevention and prophylaxis;

5. Study of the Meibomian glands as part of the ocular surface.

A major part of her research work is related to microstructural analysis of the ocular surface by means of in vivo laser-scanning confocal microscopy (IVLSCM), which is a non-invasive method allowing qualitative and quantitative assessment of ocular structures at cellular level. IVCM provides reliable data on the normal microstructure, as well as on various pathological conditions of the ocular surface, as the technology makes it possible to detect and track histopathological changes before the onset of clinical ones. IVLSCM is a unique methodology for Bulgaria and is a steppingstone between scientific research activity and clinical practice.

The candidate's scientific production demonstrates competence in the researched fields and reflects her professional training, practical experience, interests and dedication in research pursuits. As a summarizing characteristic of the scientific works, I put emphasis on the topicality of the subject under consideration, the innovative ideas, the contributing nature and the potential for practical applicability of the scientific results. The scientific contributions are predominantly original in nature – with cognitive and practical-applied significance on national and international level.

Evidence on the high quality of the publications and their reflection in the Bulgarian and international scientific literature is presented. The Medical University – Varna's reference contains a total of five positive citations in referenced and indexed in world-renowned scientific information databases.

An indisputable confirmation of the international recognition and quality of Dr. Mladena Radeva's scientific production is its high impact factor and h-index – total IF = 18.699 and h-index = 4.

A reference in assurance that Dr. Mladena Radeva has registered active scientific profiles in ORCID, Google Scholar, SCOPUS and Research Gate is presented.

Information on the candidate's participation in 9 research projects is indicated as follows:

- 2015 – “Virtual infrastructure of Medical University – Varna departments: electronic generation, documentation and saving of the disease history” (№ 15003), project leader Prof. Zhaneta Georgieva Tyaneva, MD, PhD;
- 2016 – “Creating of infrastructure for dynamic microstructural analysis of the visual analyzer with a modern angio-OCT technology” (№ 16018), project leader Chief assist. prof. Elitsa Gercheva Hristova, MD, PhD;
- 2017 – “Creation of a structure for dynamic determination of peripheral visual acuity in patients with implanted intraocular lenses and socially significant diseases” (№ 17003), project leader Assoc. prof. Binna Nikolaeva Nencheva, MD, PhD;

- 2017 – “Visual, perceptual and cosmetic comfort – patient-reported outcomes by double-blind patients after surgical recovery of their vision of the one eye” (№ 17007), project leader Prof. Christina Nikolova Grupcheva MD, PhD, DSc;
- 2019 – “Establishment of a bank for clinical photographs for educational and scientific purposes” (№ 19018), project leader Prof. Dimitrichka Duchevea Bliznakova, MD, PhD;
- 2020 – “Ergonomics in the microsurgical operating room – impact on postoperative results and quality of life of the surgeon” (№ 20009), project leader Assist. prof. Dobrin Hristov Boyadzhiev, MD, PhD, FEBO;
- 2020 – “Europe in my profession”, Project of the Bulgarian Association for European Studies, financed by the Erasmus+ Program of the Low Union, Jean Monnet activities;
- 2021 – “Creation of infrastructure for high-tech, minimally invasive management of secondary cataracts in intraocular implants and complex pathology of the anterior segment of the eye” (№ 21005), project leader Chief assist. prof. Mladena Nikolaeva Radeva, MD, PhD, FEBO;
- 2021 – “Research of good European practices for amniotic membrane and cornea transplantation” (№ 21011), project leader Chief assist. prof. Mladena Nikolaeva Radeva, MD, PhD, FEBO.

The candidate works actively and supports the scientific activity of students and specialists. Participates in national and international scientific forums in the field of the announced competition.

Assessment of the candidate’s educational and teaching activities

Chief assistant professor Dr. Mladena Radeva has 3 years of experience in the specialty and 4 years, 9 months and 23 days of teaching experience in the Department of “Ocular Diseases and Visual Sciences” of the Medical University – Varna as of 05.01.2023. By the time of the Scientific Jury audience, this experience reaches the limit of 5 years, which fully covers the statutory requirements for occupying the academic position “Associate Professor”. The academic workload is high (an average of 293 classroom hours per year over the last 5 years) and significantly exceeds the required norm for teaching employment at the institution.

The educational and teaching activities of the candidate are in the field of her professional training and scientific interests. She participates in the teaching of basic disciplines from the Ocular Diseases Curriculum BG, ENG – medicine, dentistry, nursing, midwifery and from the “Medical Optician” specialty (refraction research, ocular trauma, optics and optical devices). She actively participates in the development and actualization of the study documentation of these disciplines (curriculums etc.), as well as in the preparation of study materials for them.

The candidate has completed a large number of specialized courses for continuing education, increasing her qualification in the specialty, both at Medical University – Varna and in international universities.

Compliance with the requirements of the Medical University – Varna for occupying the academic position “Associate Professor”

The presented reference shows that Chief assistant professor Mladena Radeva covers, and in some groups of indicators, significantly exceeds the scientometric requirements for occupying the academic position “Associate Professor”, according to the Regulations for the Development of the Academic Staff of the Medical University – Varna (Table 1).

Table 1. Compliance with the scientometric requirements of the Medical University – Varna to occupy the academic position of “Associate Professor”

Indicator groups	Required number of points	Number of points based on the evidence presented by the applicant
A	50	50
B	-	-
C	100	100
D	200 (≥60 p. from indicator D 7)	220 (82 p. from indicator D 7)
E	50	75
F	-	-

Conclusion

The candidate for participation in the current competition fully meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Rules for its Application and the Regulations for the Development of the Academic Staff of the Medical University – Varna for occupying the academic position “Associate Professor”.

Chief assistant professor Mladena Radeva, MD, PhD, has built a suitable career profile with a marked desire for development and a high potential for further intensive activity. In this competition, the applicant provides up-to-date, original, valuable and sufficient scientific

production with innovative ideas and potential for practical applicability, as well as teaching, scientific, research, organizational and administrative experience.

I have been familiar with Dr. Radeva since her early years and she has always been remarkable by her consistency, precision and desire to reach new horizons.

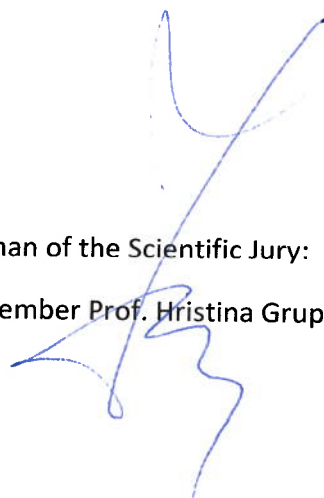
The overall assessment of her professional development, scientific appearances and contribution, educational and teaching activity, work with students and young researchers and administrative experience, prompt me to give my positive opinion and to confidently suggest to the members of the Scientific Jury to choose Chief Assistant Professor Mladena Nikolaeva Radeva, MD, PhD for the academic position "Associate Professor" in the field of higher education "7. Health care and sports", professional direction "7.1. Medicine", in the "Ocular Diseases" specialty for the needs of the "Medical Optician", Medical College – Varna at the "Prof. Dr. Paraskev Stoyanov" – Varna.

05.05.2023

Varna

Chairman of the Scientific Jury:

Cor. Member Prof. Hristina Grupcheva, MD, PhD, DSc

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke, positioned over the text of the chairman's name.