

TO
THE CHAIR OF THE SCIENTIFIC
JURY,
APPOINTED BY ORDER NO. RD26-
2023/18.10.2023 OF THE HEAD OF
UMHATEM "N.I. PIROGOV" LTD

R E V I E W

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Professor in pulmonology

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Regarding the announced competition for the academic position of "docent" in higher education 7. "Health and sport" by professional direction 7.1. "Medicine" and speciality "Pediatrics" for the needs of the Pediatrics Clinic of UMHATEM "N.I. Pirogov", according to an announcement in the State Gazette no. issue: 46, dated 26.5.2023 and on the website of the UMHATEM "N.I. Pirogov", art. 60 par. 2 of the Regulations for the Development of the Academic Staff at UMHATEM "N.I. Pirogov", Sofia and according to the decision of the Scientific Council, protocol No. 01-3/4.10.2023

Procedural matters

The competition for the academic position "of associate professor" in the scientific speciality "of paediatrics" has been duly announced. The documents of one candidate have been accepted for participation in the competition:

Dr. Snezhina Mihailova Lazova, MD

The submitted materials for the competition have been reviewed based on the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Application, and the Regulations on the Terms and Procedures for Acquiring Scientific Degrees and Holding AD and Quality Criteria for the Development of the Academic Staff of UMHATEM "N.I. Pirogov"-Sofia. All tender documents submitted by the applicant meet the requirements and are supported by the necessary supporting material.

Presentation of the candidate

Biographical data, professional development and qualifications

Dr. Snezhina Lazova was born in 1984 in the city of Petrich. He graduated from secondary education in 2002, and in 2008 he graduated with honours as a Master of Medicine at the Medical University - Sofia (Diploma No. 17596/2008)

From 2009 to 2013, she carried out his practical post-graduate training consecutively in the Pediatric Clinic of Tokuda Medical Center and in the Pediatric Clinic of Aleksandrovska Medical Center and acquired the clinical speciality "Pediatrics" in 2013 (Certificate 014259/2014)

In 2017, she successfully defended his dissertation on "Clinical significance of the functional examination of breathing and atopic status in children with asthma" and obtained the educational and scientific degree "Doctor", Diploma No. 537D, MUC series No. 000603.

In 2017, she graduated with a master's degree in health management management, Sofia University, Diploma No. 039609/2017, and in 2020 with a master's degree in "Clinical trials Management" (Diploma No. 36034/29.03.2020).

From 2011 to 2018, Dr Lazova worked at the Pediatric Clinic of UMHAT "Alexandrovska" EAD, successively as a specialist doctor, full-time, part-time doctoral student, resident doctor, and specialist in pediatric pneumology and phthisiology. Since September 2017, he has been a part-time teacher (assistant) at the Department of Pediatrics of MU-Sofia for the training needs of 5th-year medical students with teaching in Bulgarian and English. In 2020, acquired a second clinical speciality "children's pneumology and phthisiology" (Certificate No. 24258/15.02.2021)

From 2018 to the present, he is part of the team of the Pediatrics Clinic of UMHATEM "N.I. Pirogov", where he has worked as a specialist in paediatrics and pediatric

pneumology and phthysiology, and from 2021 as a chief assistant. In the same year, Dr. Lazova was selected after a competition for the position of chief assistant at the Department of Health Care at the Faculty of Public Health at Sofia University. From the beginning of 2023, Dr Lazova was also appointed as an established researcher at the Faculty of Medicine of Sofia University within the framework of the SUMMIT program.

Dr Lazova also works as a consultant in paediatrics and children's pulmonology in outpatient care at MC "Cardiohelp", MC "Pirogov", and currently at MC "INSPIRO" and MC "Neoklinik".

Dr. Lazova has a scientific and clinical interest in the fields of paediatrics, pediatric pulmonology, allergology and functional diagnostics. He has a theoretical and practical postgraduate qualification for competence in conducting spirometry, meeting world standards (European Spirometry Driving Licence) with an international certificate from the European Respiratory Society (ERS). She took part in a number of international courses and practical workshops related to the conduct and interpretation of functional lung tests (measurement of static and dynamic lung volumes and resistance, clinical interpretation; reference values); cardiopulmonary tests; thoracic ultrasound; non-invasive mechanical ventilation in childhood, childhood asthma, DDP infections in childhood; pediatric respiratory resuscitation; non-invasive mechanical ventilation in childhood. In 2022, she was successfully certified in abdominal ultrasound (SDO, Sofia University). Dr. Lazova regularly participates in the pediatric pulmonology academies (Barcelona 2015 and virtual year 2023) and lung structure and function academy (virtual year 2023) organized by ERS. In the virtual academy of pediatric pulmonology of ERS in 2023, Dr. Lazova participated as a moderator and active participant in the program with a lecture dedicated to functional diagnostics.

Dr. Lazova has conducted practical post-graduate training in Pediatric Clinics in Germany (Clinic of Pediatrics and Adolescent Medicine at the multi-profile hospital Koblenz-Mayen, Koblenz, in 2012) and Greece (University Hospital "Atikon", Athens, in 2015), as well as practical seminars on pediatric pulmonology, allergology and immunology in Austria (Salzburg).

He is a member of the Bulgarian Medical Association, the Bulgarian Pediatric Association, the Bulgarian Association of Pediatric Pneumology and Phthysiology, the Bulgarian Society of Pulmonary Diseases, the European Academy of Allergology and Clinical Immunology (EAACI) and the European Respiratory Society (ERS).

The candidate is fluent in English, German and Greek, and has the necessary computer literacy.

Scientific research and teaching activity

Publication activity

In the current competition, Dr. Lazova participated with 54 full-text publications and 3 chapters of collective monographs, all realized after acquiring the scientific and educational degree "doctor". 14 of them are in journals that are referenced and indexed in world-famous databases with scientific information, 35 are in Bulgarian peer-reviewed journals and 5 publications in other printed publications. Seven of the publications are in journals with an impact factor (Thomson Reuters). In more than half of the publications after acquiring the ONS "doctor", Dr. Lazova is the first or last author (58%) and in 71% of the publications with an impact factor. The total impact of scientific works is 112,212, and from publications and reports after the defense of the dissertation work for ONS "Doctor", it is 45,092 (articles - 24,645, full-text publications - 19,94, published reports - 20,447).

Citations

An official citation report from the Central Library of Medicine is provided, according to which the applicant has 21 citations in publications referenced in SCOPUS (Elsevier) and 25 citations in Web of Science (Clarivate). In addition, there are also 9 citations in publications from other foreign freely available online sources (proofs provided). 22 citations were reported from the CMB repository (list provided). Two of the candidate's publications have been cited in a university textbook.

Participation in congresses and scientific forums

Dr. Lazova took part in posters, poster discussions and reports in 50 scientific forums - 25 in Bulgaria and 28 abroad, at which 78 scientific reports were presented. For the presentation of scientific developments in a poster session, Dr. Lazova was awarded two first prizes and a third prize. In 2016, he won a Silver Grant for participation and presentation in a poster discussion of the abstract "Bronchodilator responsiveness after ICS treatment", ERS International Congress London 2016; twice winner of the Travel Grant for participation in the International Severe Asthma Forum - Manchester 2016 and Madrid 2018.

Participation in national and international scientific projects

Dr. Lazova is an active participant in seven scientific projects funded by the SMN of Sofia University. Six of them are under the GRANT program:

- "Genotype-phenotype association of bronchial asthma in childhood." (highly rated report)
- "Th17 lymphocyte subpopulation and vitamin D in childhood asthma" (reported with good grade)
- "Study of serum antibodies against *Pseudomonas aeruginosa* in patients with cystic fibrosis and comparison of the results of a standard microbiological examination of respiratory tract secretions" (high-grade report)
- "Study of pulmonary function in children with scoliosis" (highly rated report)
- "The dynamic picture of respiratory pneumococcal infections in children after the introduction of routine pneumococcal vaccination in Bulgaria" (high grade report)
- "Nasopharyngeal microbiome in children with scoliosis" (highly rated)
- "Lung function assesment in working-age women (18-64 years) from the health care field" (highly rated report)

And one under the YOUNG RESEARCHER program ("Determining the atopic status of children with asthma and measuring the temperature of exhaled air to monitor airway inflammation and the level of control."), reported with an excellent/high/high grade.

Dr. Lazova is also responsible for two scientific projects at the Scientific Unit of UMHATEM "N.I. Pirogov" on the topic "Study of the health risks of taking energy drinks in children and adolescents" and "Study of the clinical and laboratory characteristics of children with Multisystem Inflammatory Syndrome (MIS-C)".

Dr. Lazova also participated in an international multidisciplinary project - Improving Training for Nursing Clinical Pathways (AGILITY) under the program "ERASMUS+KA2010 "Improving the training of nurses along clinical pathways" with participants Sofia Medical University, Faculty of Public Health and Kapodistrian University Athens

Presented publications as a thesis

For participation in the current competition, Dr Lazova presents 10 articles and 2 chapters in a book, as well as 3 abstracts from participation in international congresses published in journals with an impact factor. The total score of the 12 full-text publications is 385.8 points and exceeds the required minimum of 100.

Publications can be grouped into two areas - chronic lung diseases (bronchial asthma, cystic fibrosis) and acute respiratory infections in children with a focus on seasonal respiratory viruses, including SARS-CoV2, RSV, Bocavirus and other typical and atypical bacterial pathogens. The articles devoted to the rare multisystem inflammatory syndrome (MIS-C) associated with past coronavirus infection demonstrate good theoretical and clinical knowledge of general pediatric pathology and its multidisciplinary integration.

Evaluation of Dr. Lazova's scientific works for her overall academic development

Dr. Lazova is defending her PhD thesis on "Clinical significance of the functional examination of breathing and atopic status in children with asthma." A significant part of Dr. Lazova's scientific developments and publications are focused on bronchial asthma in all age periods of childhood. Particular attention is paid to the practical application of the functional breathing test (FID) in the process of both diagnosis and treatment and monitoring of the disease. In addition to conventional spirometry (initial and after administration of a fast-acting beta agonist), the candidate also applies new alternative methods for FID in preschool children - the method of forced oscillations (Forced oscillation technique, FOT).

Dr. Lazova's publications can be summarized in several thematic areas:

- Bronchial asthma in childhood
- Lung function testing
- Immunological aspects of childhood asthma and chronic lung diseases
- Virology and molecular diagnostics of respiratory infections
- Microbiological aspects of cystic fibrosis and chronic lung diseases
- Coronavirus infection in childhood
- Multisystem inflammatory syndrome in children
- Vaccine prophylaxis in childhood and dynamics of pneumococcal diseases in childhood

- Protracted bacterial bronchitis and chronic wet cough in childhood
- Clinical aspects of pediatrics and pediatric pulmonology

Functional diagnosis of lung diseases is a topic of significant scientific and practical interest for the candidate. A large part of the publication activity is dedicated to the different methods for FID in preschool and school-age children and their correct application such as indications, technique and quality of performance, selection of reference values, safety and correct interpretation of results. In addition to children with bronchial asthma, the candidate applies FID methods in the assessment of lung function in children with spinal curvatures and sternum deformities (scoliosis and pectus excavatum).

Dr. Lazova's scientific work also includes in-depth theoretical analysis of immunological aspects of bronchial asthma, cystic fibrosis and other chronic lung diseases, as well as analysis of MCP-1/CCL expression, vitamin D levels and characterization of Th17 lymphocytes.

Together with virologists from the national reference laboratory for influenza and acute respiratory infections, headed by Prof. Korsun, as well as paediatricians from UMHAT "Alexandrovska" and UMHATEM "N.I. Pirogov", Dr Lazova is actively working to collect samples for conducting sentinel studies of the etiologic spectrum of seasonal acute respiratory infections with a special focus on the clinical and epidemiological manifestations of influenza, RSV, bocavirus and SARS-CoV2.

Dr. Lazova is involved in scientific developments of the microbiological aspects of cystic fibrosis and chronic lung diseases.

As a member of the team of the Pediatrics Clinic of UMHATEM N.I. Pirogov, working at the same time in the Multi-Profile Children's Emergency Department of the Hospital, Dr. Lazova actively participated in welcoming the first wave of patients with COVID-19 infection, as well as in the course of subsequent epidemic peaks during the pandemic. The clinical experience gained in working with ambulatory and hospitalized children, including intensive care, is shared in scientific forums and summarized in publications realized in refereed and non-refereed scientific journals with scientific review.

Dr Lazova shows a clinical and scientific interest in pneumococcal diseases in childhood and the course of pneumonia in children before and after the Covid-19 pandemic, as well as the dynamics of invasive pneumococcal infections before and after the introduction of the conjugated pneumococcal vaccine in the immunization calendar of R. Bulgaria.

Teaching and academic activity

Dr. Snezhina Lazova has 10 years of teaching experience. At the beginning of his teaching experience, he was a part-time teacher of Bulgarian and English-speaking medical students in the 5th year at the Sofia University, Faculty of Medicine in the academic year 2017/2018, training trainee doctors with a total study load of 195.1 hours; Since 2019, he has been teaching as a part-time teacher at the Sofia University, Faculty of Public Health, and since September 2020 he is also the main assistant. For the period 2019-2023, he conducts a lecture course, and seminar lessons for students in the following specialities - "nurse", "midwife", "clinical trial management", "kinesitherapy", "and medical assistant" at the Faculty of Public Health, Sofia University with a total workload for the last 3 years – 125 hours/year.

Since 2020, she has been elected as the chief assistant at UMBALSM ,N.I. Pirogov, where she conducts a lecture course for medics in emergency medicine, supervises student summer internships/internships and acts as a lecturer for students IV-th course profile Emergency medicine with a general horary (6 study hours lectures, 20 study hours practical exercises).

Dr. Lazova is a supervisor of two specialists in paediatrics enrolled at the Clinic of Pediatrics of the N.I. Pirogov UMBALSM.

For 2021/2022 and 2022/2023, there is a total study load of 250 hours from Healthcare Department of Medical University Sofia, 20 practical hours and 6 hours of lectures at UMHATEM "N.I. Pirogov".

Therapeutic and diagnostic activity

Dr Lazova is an accomplished clinician with 15 years of experience in paediatrics and pediatric pulmonology. In his professional career, he gained experience in leading clinical units in Bulgaria and abroad, which he applied in his work, both in hospital and pre-hospital care. During the years of work, Dr Lazova continued updating and upgrading her theoretical and practical knowledge through various forms of postgraduate training and applying them in her daily clinical practice, as well as passing them on to students, trainees and specialists in her teaching activities. During her work at UMHATEM "N.I. Pirogov", also gained experience in emergency conditions in paediatrics and the diagnostic-consultative,

therapeutic and organizational process in a multi-profile and multi-disciplinary pediatric emergency department. Dr. Lazova has good communication and organizational skills and the ability to work in a team, which is an important prerequisite for the successful continuation of her professional development.

Summary

Compliance with the requirements of Appendix 3 of the Regulations on the terms and conditions for the acquisition of scientific degrees and the occupation of academic positions for the occupation of the academic position of "associate professor", Professional direction 7.1. Medicine - medical-clinical field:

Indicators - groups	Required number of points	Number of points based on evidence provided – Dr Snezhina Mihaylova Lazova
Group A	50	50
Group C Habilitation thesis 10 articles/monography	100	385,8
Group D	400	487,15
Total number of articles	25	54
IF Articles	5	7
Group E	300	645
Citations in foreign database	10	34
In Bulgarian journals	5	24
Group F	80	205
Research projects	1	8+1
Specialty	1	2
Training postgraduate students, PhD students, interns	yes	yes
Group G	440	441
Teaching hours	220	141
Senior Assistant	200	300

RESEARCH ACTIVITY	930	1772,95
TEACHING ACTIVITY	420	441
TOTAL POINTS	1350	2213,95

Conclusion

Dr. Snezhina Mihailova Lazova is an experienced clinician and broad-based teacher with excellent language training, with research interests in paediatrics, with a focus on pediatric pulmonology, confirmed by her scientific publications. He has accumulated experience in studying the clinical and epidemiological characteristics of respiratory infections in childhood, the clinical and functional characteristics of childhood diseases and in particular childhood asthma, and emergency conditions in paediatrics. Her experience has been shared with the scientific community in a sufficient volume of scientific publications in refereed medical journals, as evidenced by the submitted articles of the competition. An important aspect of the submitted application is the accumulated specialized teaching experience at different levels and teaching profiles. According to the evaluation indicators, in accordance with the requirements of Appendix 3 of the Regulations on the terms and conditions for the acquisition of scientific degrees and holding academic positions, for the occupation of an academic position "associate professor" in the medical and clinical field, Dr. Snezhina Lazova is responsible for all individual assessment indicators, with the total assessment being almost twice as high as the minimum required for the competition, with a certain preponderance of the scientific indicators, which exceed twice the minimum requirements – 1772 with a minimum of 930 required.

In conclusion, the analysis of the scientific and teaching activity of the candidate, Dr. Snezhina Lazova significantly exceeds the minimum requirements and fully meets all the mandatory conditions for the scientific and teaching activity for holding the academic position of "associate professor" in the field of higher education 7. Health and sport" by professional direction 7.1. "Medicine" and scientific speciality "Pediatrics", specified in Appendix No. 3 of the Regulations on the terms and conditions for acquiring scientific degrees and occupying academic positions.

Based on the above, I recommend to the members of the scientific jury, appointed with No.RD26-2023/18.10.2023, the Executive Director of UMHATEM "N.I. Pirogov" EAD, Sofia, to award Dr Snezhina Mihailova Lazova, PhD., the academic position of "associate professor", in the field of higher education 7. Health care and sports, by professional direction 7.1 Medicine for the needs of the Pediatric Clinic at UMHATEM "N .I. Pirogov" EAD.

28.11.2023

Sofia

Prof. Kosta Kostov, PhD, FCCP

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