

To

The Chairman of the Scientific Jury

Assigned by Order No. 15-05-31/11.02.2025

of the Executive Director and Procurator

of "ACC UMBAL TOKUDA" EAD

To your protocol No. 1/11.02.2025.

I am attaching a REVIEW on a competition for the position of **"Associate Professor"** in the scientific specialty **"Pediatrics"**, field of higher education 7. Health and Sports, professional field 7.1. Medicine, announced for the needs of the Pediatrics Clinic of "Acibadem City Clinic UMBAL Tokuda". The competition was announced in the State Gazette No. 105/13.12.2024.

Reviewer: Assoc. Prof. Dr. Kalin Yordanov Lisichki, MD, PhD

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Scientific specialty: pediatrics, pediatric rheumatology

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The review was prepared in accordance with the requirements of the Academic Staff Development Act, in implementation of Art. 4, para. 2 and Art. 25 of the Act on the Development of Academic Staff of the Republic of Bulgaria and Art. 2, Art. 57, para. 2 of the Regulations for the Implementation of this Act, Art. 61 of the Regulations for the Development of Academic Staff at Acibadem City Clinic UMBAL Tokuda and Order of the Executive Director and Procurator of Acibadem City Clinic UMBAL Tokuda dated No. 15-05-31/11.02.2025 upon proposal of the Scientific Council (Protocol No. 55/28.11.2024).

One candidate has been admitted to the competition for the academic position of Associate Professor in the scientific specialty of Pediatrics – Dr. Vesselina Ivanova Kenderova, MD, PhD, physician at the Pediatrics Clinic, "ACC UMBAL Tokuda".

All documents for the competition are presented in accordance with the requirements of the Regulations for the Application of the ZRASRB, well-arranged, in excellent aesthetic form and supported by the necessary evidentiary material.

PRESENTATION OF THE CANDIDATE

Dr. Vesselina Ivanova Kenderova

Biographical data and professional development

Dr. Vesselina Ivanova Kenderova was born on 06.12.1973.

In 1991 she graduated from secondary school "Tsanko Tserkovski", Polski Trambesh.

In 1997 she graduated from Medical University - Sofia.

From 1998 - 1999 she worked at the Clinic of Pediatric Surgery, University Hospital "N. Pirogov", Sofia.

From 2001 - 2006 she worked at the Children's Clinic, University Hospital "Alexandrovska", Sofia.

From 2006 to the present she is a doctor at the Clinic of Pediatrics, ASK University Hospital Tokuda, Sofia.

Doctor of Medicine since 2006 with a dissertation on the topic "Clinical and immunological studies in immune thrombocytopenic purpura in childhood".

Since 2005, she has acquired a specialty in "Children's Diseases", and since 2014 - "Children's Pneumology and Phthisiology".

Since 2015, she has a Master's degree in Public Health and Health Management.

She has completed training in: Conducting pulmonary function tests;

Maintaining basic vital functions - initial level; Maintaining basic vital functions - advanced level.

Membership in organizations

She is a member of the Bulgarian Medical Union, Bulgarian Pediatric Association, Bulgarian Pediatric Respiratory Society, European Respiratory Society.

The presented data speak of the upward development of Dr. Vesselina Kenderova and her aspiration to expand knowledge in the field of pediatrics and pediatric pneumology.

Assessment of teaching and teaching activities

Dr. Vesselina Kenderova has 15 years of experience as a teacher.

Dr. Kenderova has submitted a report on her academic workload to Sofia University "St. Kliment Ohridski", Faculty of Medicine, Department of "Internal Medicine, Pharmacology and Clinical Pharmacology, Pediatrics, Epidemiology, Infectious and Skin Diseases".

For the academic year 2021/2022: Total academic workload 420 hours, of which:

- 420 classroom hours.

For the academic year 2022/2023: Total study hours 360 hours, of which:

- 360 classroom hours.

For the academic year 2023/2024: Total study hours 420 hours, of which:

- 420 classroom hours.

Evaluation of scientific and research activities

Dr. Kenderova submits the following scientific works for participation in the competition:

Publications:

Total number of scientific works – 54, in the form of one dissertation, 26 scientific publications and 27 scientific communications.

Scientific publications in publications that are referenced and indexed in world-renowned databases of scientific information – Scopus, Web of science – 11 (10 in Cyrillic and 1 in Latin).

Publications with impact factor – 1.

Publications published in non-refereed journals with scientific review or published in edited collective volumes – 15 (14 in Cyrillic and 1 in Latin).

Dissertation – 1

First author in 38.46% of all publications after obtaining the ONS "doctor". Has a total impact factor of publications 9.775.

Citations, H-index (Scopus):

From the official reference of the CMB, the total number of citations of the candidate's publications in refereed and indexed journals and in non-refereed ones is 396.

H-index - 3

Citations in Bulgarian sources – 18

Citations in foreign sources (Scopus, Elsevier) – 151

Citations in foreign sources – (Web of science, Clarivate) – 227

In this competition, out of all the citations, 7 articles were used, of which 1 article is in the Scopus database, 1 article in monographs and collective volumes with scientific review and 5 are in non-refereed journals with scientific review in Bulgaria.

Reference to the competition indicators. Quantitative and scientometric criteria for occupying the academic position of "Associate Professor" at "ACC UMBAL Tokuda"

Dr. Kenderova has a total score of 560.7 with a minimum score requirement of 400.

Habilitation work

As her habilitation work, Dr. Kenderova has presented 10 articles published in journals that are referenced in international databases. The majority of them are related to systemic diseases, including rare clinical cases with systemic involvement. Such is the description of Vogt-Koyanagi-Harada disease in a 3-year-old girl, in which specific examinations were required, which led to an almost one-year delay in diagnosis (5). Another rare pathology is Mucha-Habermann disease, also known as pityriasis lichenoides et varioliformis acuta (PLEVA) in two children with a good therapeutic outcome after antibiotic therapy and low-dose steroids and ultraviolet irradiation in one and only with ultraviolet irradiation in the second (1). Two articles are presented dedicated to childhood myositis and specifically - benign acute childhood myositis. Acute muscle pain and difficulty walking are symptoms associated with both benign and severe degenerative diseases. A clinical case of a 12-year-old boy with myositis and rhabdomyolysis (2) and a 7-year-old boy with COVID-19-induced myositis with a favorable outcome (7) are described. Macrophage activation syndrome (MAS), which is a form of secondary hemophagocytic lymphohistiocytosis, most often develops as a complication of autoimmune rheumatic diseases, although a number of infectious agents can also lead to its manifestation. Two clinical cases of children with allergy to corticosteroids in MAS and the clinical course of MAS in another child are the subject of two other publications from the habilitation thesis (3,4). Kawasaki disease (KD) is an acute febrile disease characterized by arteritis of medium-sized vessels, most often affecting the coronary arteries, which determines its social significance. The subject of KD with the contribution of two cases is also publication number 6 in the habilitation thesis.

In addition to these interesting clinical cases requiring an interdisciplinary approach, the habilitation triad also includes two reviews addressing interdisciplinary problems – the first is about childhood masturbation (8) and the second is hypothermia, a rather neglected pathology in children (9).

The last article included in the habilitation work is the result of Dr. Kenderova's tireless work with children with immune thrombocytopenia over the years (10). This publication emphasizes that long-term follow-up of children with immune thrombocytopenia (ITP) establishes that most of them experience remission and severe thrombocytopenia is rare. Remission occurred in 37% of patients between 28 days and 6 months, 16% between 6 and 12 months and 24% between 12 and 24 months (total 77%). There are no reports of intracranial hemorrhages. Skin hemorrhages are the most common. These data support the hypothesis of the

benign nature of ITP in most affected children and that massive bleeding, even with prolonged severe thrombocytopenia, is rare (10).

Contributions that emerged after reviewing the scientific production of Dr. Vesselina Kenderova

I. Hematology

Dr. Kenderova's dissertation is on the topic of "Clinical and immunological studies in immune thrombocytopenic purpura in childhood". The contributions that emerge from it are:

Contributions of an original nature: 1. Separation of different groups according to the severity of thrombocytopenia and especially the division of moderate-severe thrombocytopenia into two subgroups, which is relevant to the indications for treatment.

2. For the first time in our country, the importance of surface-bound antiplatelet autoantibodies has been proven, both as a prognostic sign and as a diagnostic test.

Contributions of an applied nature: For the first time in Bulgaria, the topic of immune thrombocytopenic purpura in childhood is being developed.

1. The clinical characteristics of the hemorrhagic syndrome in children with ITP have been studied in detail.

2. The severity levels of overt bleeding and their clinical significance are defined.

3. The indications for initiating corticosteroid treatment are defined and its efficacy is reported.

Methodological contributions

1. For the first time in Bulgaria, CELIA – the method for the study of fixed antiplatelet autoantibodies in children with immune thrombocytopenic purpura – was introduced.

In addition to her dissertation, Dr. Kenderova participated in the competition with three publications in the field of pediatric hematology. The first is a large international study dedicated to immune thrombocytopenic purpura (10). The other two describe: An extremely instructive and complex case of a child with cerebral hemorrhage and hemophilia B with a good outcome (13) and a review of hemolytic anemias, which are characterized by a shortened survival of erythrocytes circulating in the peripheral blood. Some hemolytic anemias are due to enzyme deficiencies, the most common of which is glucose-6-phosphate dehydrogenase deficiency. The clinical course of the disease can be chronic nonspherocytic hemolytic anemia, neonatal jaundice, infectious-induced hemolysis, favism, drug-induced hemolysis, hemolytic crises caused by other factors. Treatment of this disease is carried out with hemotransfusion and depends on the hemoglobin values and the absence or presence of hemoglobinuria (12).

II. Pediatric Pulmonology

Dr. Kenderova's publications are related to acute respiratory infections, bronchial asthma, foreign bodies in the lung and non-traumatic chest pain. 7 articles are devoted to them. A

comprehensive review of the most common cause of morbidity and mortality worldwide – acute respiratory infections (ARI) (20), as well as a clinical case of a 4-year-old child with clinical manifestations of acute respiratory syncytial virus (RSV) bronchiolitis and transient ventricular arrhythmia /from bigemina to quadrigemina/ within the framework of the underlying disease, and the extrapulmonary manifestations of RSV are also considered. The complex treatment, aimed at influencing the respiratory manifestations and rhythm disturbances, led to a permanent stabilization of the child's condition and a complete cure (19). COVID-19 is a systemic disease, but the most common pathology is on the part of the respiratory system. Therapeutic options and trends in COVID-19 among the pediatric population are also discussed in publication number 25. Of particular interest is the extremely rare complication of COVID 19, namely the syndrome of systemic increased capillary permeability (21).

The most common chronic lung disease - bronchial asthma is the subject of two extensive reviews, one on the basic principles of etiopathogenesis, diagnosis and treatment (15), and the other on possible risk factors for the development of the disease among the pediatric population. Depending on the period of fetal and child development during which these risk factors exert their impact, they are: prenatal (with the greatest influence are parental asthma, especially in the mother), perinatal (birth by cesarean section, premature birth, low birth weight children, etc.) and postnatal /infections with respiratory syncytial virus, overweight, air pollution, household allergens, etc./. Prevention options include controlling maternal asthma, limiting smoking, and taking antibiotics and paracetamol during pregnancy, delivering at term, and consuming a diet rich in polyunsaturated fatty acids, vitamins D and E, and fresh fruits and vegetables (22).

Aspiration of foreign bodies into the bronchial tree is the fourth leading cause of sudden death in children under 5 years of age. The relevance of this problem has remained over the years and is also part of Dr. Kenderova's publication activity (14). Another interesting, significant, and little-discussed problem in pediatric pulmonology is the problem of non-traumatic chest pain, which is a common symptom in children and adolescents. Due to its association with fatal heart disease in adults, it is considered a harbinger of serious heart disease and therefore causes significant anxiety for patients and their families. This problem has also been discussed and published by Dr. Kenderova (24).

III. Pediatric Rheumatology

Due to their multisystemic nature and multiorgan involvement, rheumatological diseases require a broad differential diagnosis and an interdisciplinary approach to diagnosis and treatment. The majority of the articles in the habilitation work fall into this area. In addition to them, Dr. Kenderova has also worked on the problems of febrile conditions in childhood (16).

SMA is the subject of two articles in the habilitation work and two more scientific reports – a review of the main characteristics, diagnostic and therapeutic approach (17) and a clinical case of a child with pronounced SMA after Mycoplasma infection (26). Another article concerning acute myositis (11) and a clinical case of Felty syndrome (23) are among the scientific contributions of Dr. Kenderova.

The diseases that are the subject of pediatric rheumatology have systemic manifestations. Pulmonary involvement may be the main clinical manifestation, as in granulomatosis with polyangiitis (Wegener's granulomatosis) and eosinophilic granulomatosis with polyangiitis (Churg-Strauss syndrome). In others, pulmonary manifestations are of variable frequency and clinical presentation. In granulomatosis with polyangiitis, pulmonary infiltrates, nodules and cavitations, diffuse alveolar hemorrhages are most often described; in eosinophilic granulomatosis with polyangiitis, there is a combination of asthma, extreme eosinophilia, pulmonary infiltrates, mono/polyneuropathy. Of the other rheumatic diseases, the most significant lung involvement is observed in systemic scleroderma in the form of pulmonary interstitial fibrosis, pulmonary hypertension and the development of cor pulmonale. In systemic lupus erythematosus, juvenile idiopathic arthritis, dermatomyositis and vasculitic syndromes, pulmonary involvement varies from the presence of pulmonary infiltrates and granuloma formation, pleurisy with/without pleural effusions, pneumonitis, diffuse alveolar hemorrhage, interstitial pulmonary fibrosis. Treatment of pulmonary manifestations is specific to the underlying systemic disease and is often effective in reducing lung involvement. The prognosis of systemic inflammatory diseases is improving. Increasing emphasis is placed on the early detection and treatment of pulmonary manifestations in them. Extensive scientific training, clinical experience and critical thinking allow Dr. Kenderova to make a comprehensive interdisciplinary review on the topic "Pulmonary manifestations in rheumatic diseases in childhood" (18).

Clinical and diagnostic activity

Dr. Vesselina Kenderova is a clinician with 20 years of experience in the field of pediatrics and 10 years of experience in the field of pediatric pulmonology. She actively participates in the treatment-diagnostic and consultative activities of the Pediatric Clinic of Acibadem City Clinic UMBAL TOKUDA EAD. In her long-standing practice as a pediatrician and pediatric pulmonologist, Dr. Kenderova has the opportunity to encounter a variety of general pediatric and pulmonary pathologies. She is familiar with modern diagnostic and therapeutic approaches, which is reflected in her versatile scientific production. She copes excellently with clinical work, demonstrates the ability to make timely independent decisions. Her excellent practical and theoretical training allows her to successfully transfer the acquired knowledge and personal experience to future physicians and residents. Dr. Kenderova is a respected colleague with authority in the pediatric community.

Conclusion

Dr. Vesselina Kenderova meets all mandatory conditions, exceeding the minimum requirements for scientific and teaching activities for holding the academic position of "Associate Professor" in Professional Field 7 - "Healthcare and Sports" in Professional Field 7.1 - "Medicine" and scientific specialty "Pediatrics" for the needs of the Pediatrics Clinic of "Acibadem City Clinic UMBAL TOKUDA" EAD, announced in the Official Gazette No. 105/13.12.2024.

Based on the above, I recommend that the members of the scientific jury, appointed by Order No. 15-05-31/11.02.2025, award Dr. Vesselina Kenderova, MD, PhD the academic position of "Associate Professor", in the field of higher education 7. Healthcare and Sports, in Professional Field 7.1 Medicine and scientific specialty Pediatrics for the needs of the Pediatrics Clinic of "Acibadem City Clinic UMBAL TOKUDA" EAD, announced in the Official Gazette No. 105/13.12.2024.

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03/05/2025

Reviewer:

(Assoc. Prof. Kalin Lisichki, MD)

