

**To the Chairman of the Scientific Commission,
determined by Order N P-109-176 / 23.04.2021
of the Rector of MU-Varna**

On your Protocol N1 / 05.05.2021

Attached I present:

Review

in a competition for the academic position of "Associate Professor" in the scientific specialty "Pediatrics", announced by MU-Varna, Department of Pediatrics in SG no. 17 / 26.02.2021

Reviewer: Assoc. Prof. Dr. Boryana Emanouilova Avramova, MD, Department of Pediatrics, Medical University - Sofia

In the competition for the academic position of "Associate Professor" in the scientific specialty "Pediatrics" at the Department of Pediatrics of MU-Varna, the only candidate is Dr. Milena Ivanova Belcheva, MD.

Description of the submitted materials for the competition: The submitted materials for participation in the competition are complete, clearly arranged and comply with the requirements of Law for the development of academic staff of the Republic of Bulgaria and the regulations for its application of MU-Varna. These include: application for a participation in the competition, creative CV, diplomas of education, diploma of doctor of medicine, diplomas of recognized specialties, certificate of recognized qualification, declaration of authenticity, academic report, abstracts of scientific papers, reference of scientific contributions, list of participation in national and international scientific events, reference and evidence for the cited and impact factor, reference for workload and certificates.

Candidate profile: Dr. Milena Ivanova Belcheva was born on August 23, 1960 in Shumen. In 1979 he graduated from the IV Language High School with teaching in French in Varna and in 1985 from the Higher Medical Institute in Varna, majoring in medicine. In 1991 he acquired a degree in pediatrics, in 2004 in oncology and in 2006 in pediatric

hematology and oncology. In 2019, after successfully defending his dissertation, he acquired the educational and scientific degree "Doctor". He has qualifications in palliative care; abdominal ultrasound; Lunar DXA scan for osteoporosis and metabolic diseases; stem cell transplantation; pedagogical foundations of academic teaching; completed a qualification course in pediatrics of the European Hematological Association.

Specializations: 1998-2000 - specialization in pediatric oncology at the Institut Gustave Roussy, Paris; 1999 - in pain and palliative care for adults and children at the Institut Gustave Roussy, Paris; 1999-2000 - postgraduate specialization in pediatrics at Universite Paris V, Paris; 1999 - course in antitumor chemotherapy and treatment of malignant diseases at the Institut Gustave Roussy, Paris;

The professional development of Dr. Belcheva includes: 1985-1986 - pediatrician at the Children's Polyclinic of the Republic of Bulgaria - Shumen; 1992-1993 - pediatrician at the Department of Pediatric Pulmonology at MHAT "St. Marina »; from 1993 to the present - pediatric oncologist at the Department of Pediatric Clinical Hematology and Oncology at the University Hospital "St. Marina »- Varna; 1999-2000 - resident doctor at the Department of Pediatrics, Institut Gustave Roussy, Paris. Academic development:

Consecutively realized in MU-Varna as follows: 1992-1996 - assistant; 1996-2001 - senior assistant; 2001 - 2015 - Chief Assistant; from 2015 to the present - assistant; 2015-2019 - PhD student in independent training at the Department of Pediatrics, majoring in pediatrics. In 2019 he successfully defended his dissertation on the topic: "Cardiovascular changes, cardiometabolic risk and bone health after successful treatment of malignant hemopathy in childhood."

Publications: Teaching book - 1 with a volume of 20 pages. Articles - 45 with a total volume of 224 pages.

Participation in scientific forums and research projects: Participates in national congresses and conferences, regional scientific meetings, international congresses and conferences. Coordinator in the international project "Training of caregivers" in partnership with the Training Center "Saint Michel" - Groupe Hospitalier "Saint Augustin", Malestroit, France, which is the basis of training in "Health Assistant" and "Caregiver" at the Faculty of Public healthcare.

Teaching activity: conducts seminars in pediatrics, participates in a lecture course in pediatric hematology of AEO students.

Membership in scientific and professional organizations: in BMA, BPA, BSH, DDHO, SIOPE, SFCE.

Scientometric indicators:

1. IF - referenced and indexed editions Scopus / WOS - 18.48 (other than those related to the dissertation)
2. Citation (IC) - citations in scientific journals, referenced and indexed in world-famous databases with scientific information - 13; in monograph and collective volumes - 1; citations in unrefereed journals with scientific review - 1; total -15 I

In this competition Dr. Belcheva participates with a total publishing activity of 40 scientific papers, divided into 2 groups. In the first group, proving the fulfillment of the minimum requirements, 1 dissertation work is included; 10 scientific publications in referenced and indexed in world-famous databases with scientific information; 7 publications and reports published in scientific journals, referenced and indexed in world-famous databases with scientific information, of which 3 full-text publications and 4 published abstracts and 14 full-text publications in non-peer-reviewed journals with scientific review. The second group includes publications outside the minimum scientometric requirements for "Associate Professor" - a total of 9, of which 4 full-text publications in Bulgarian journals and 5 publications in collective manuals. Dr. Belcheva also has 2 publications related to the dissertation.

The publications in Bulgarian are 34, the publications in English - 7, of which 1 is a full-text publication in a foreign journal, 35 are full-text publications in Bulgarian journals (2 in English) and 6 abstracts in foreign journals with IF. Of all his publications on the implementation of the minimum requirements for the academic position of "Associate Professor" and beyond, Dr. Belcheva is an independent author of 7 (16.3%) and co-author of 36 (83.7%), of which the first or last author in 16 (44.4%), second author in 10 (27.8%) and subsequent author in 10 (26.8%). Dr. Belcheva has a total of 89 participations in national and international scientific forums, of which 5 in Bulgarian scientific forums with published abstracts in Bulgarian journals, 2 in foreign scientific forums with published abstracts in journals, 48 in Bulgarian scientific forums with published abstracts / reports in collections in Bulgarian, 22 in international scientific forums with published abstracts in collections and 12 in Bulgarian scientific forums without published abstracts.

The main scientific directions of Dr. Belcheva's works are:

Area 1: Late effects of treatment of childhood malignancies and follow-up of patients in long-term remission

Area 2: Solid tumors in childhood

Area 3: Malignant hemopathy in children

Area 4: Emergencies and complications in the course of malignant diseases and their therapy in children

Area 5: Benign hematological diseases

The contributions of the presented scientific publications by thematic area are:

1. Late effects of the treatment of malignant diseases in childhood and follow-up of patients in long-term remission - in 9 publications and the dissertation.

The country's first comprehensive study of children and young adults in long-term remission of acute lymphoblastic leukemia and Hodgkin's lymphoma treated in childhood was conducted. The most frequent and significant late effects of the therapy were evaluated, and for the first time in the country modern research methods were applied to this target group. The articles and scientific reports present the first in Bulgaria analysis of cardiometabolic risk, bone health and subclinical heart damage in individuals who have survived malignant hemopathy. They are also the first studies in our country on the frequency and combination of cardiovascular risk factors in this population with national specifics. By analyzing the results for cardiometabolic risk through integrated systems, a strategy based on individual characteristics could be created to prevent complications in patients. The analysis of patients' body composition, together with conventional methods for assessing obesity, deepens the understanding of metabolic risk. The categorization of the survivors of malignant hemopathy into 4 phenotypes of body composition has been made, which has not been done so far in the world literature. For the first time in Bulgaria, studies have been conducted that comprehensively study bone health and indicators affecting the bone mineral density of survivors of malignant hemopathy.

With the improvement of the therapeutic results of children with acute lymphoblastic leukemia and Hodgkin's disease, the focus of modern pediatric oncology is shifting to the monitoring and prevention of late complications in surviving patients.

The works of Dr. Belcheva have a significant contribution to this approach of modern pediatric oncohematology.

2. Solid tumors in childhood - in 14 publications

Some of the articles summarize modern understandings of biology, histogenesis, clinical manifestations, evolution, diagnostic problems and modern principles and methods of complex treatment of the most common solid tumors in childhood - nephroblastoma,

neuroblastoma and retinoblastoma. The importance of a multidisciplinary approach to the care of these patients is emphasized.

In five sections of the first of its kind in Bulgaria guide for neuroblastoma behavior are presented in a synthesized form of the literature and recommendations for risk stratification, treatment of relapse, behavior in paraneoplastic syndromes and follow-up of patients after treatment, based on evidence-based medicine.

Another part of the publications and scientific reports summarizes the immediate clinical experience in nosological diversity, diagnosis, risk stratification, treatment and therapeutic outcomes in pediatric tumors. Own results from three clinical trials of the Pediatric Oncology and Hematology Clinic in Varna for nasopharyngeal carcinoma, retinoblastoma and nephrosis have been reported.

Rare tumors and unusual primary metastatic sites and complications in the clinical evolution of solid tumors in children have been reported in isolated publications and reports.

3. Malignant hemopathy in childhood - in 4 publications

For the first time in Bulgaria, data from the three pediatric oncohematology centers on the therapeutic outcomes in children with AML treated according to the unified AML BFM protocol and on the morphological variants, clinical stage, treatment and survival in malignant non-Hodgkin's lymphomas were summarized and reported (report).

An article discusses immunophenotypic modulation in acute lymphoblastic leukemia and its importance in the interpretation of minimal residual disease.

In our own single-center study of patients with Hodgkin's lymphoma, diagnosed and treated for a period of 20 years at the Clinic of Pediatric Oncohematology in Varna, the pathomorphosis of the disease and increasing the age at diagnosis was proved. The publication identifies a change in the histological variant over the last 10 years and a clear trend for improved survival based on modern protocols for diagnosis and treatment.

The first case in the world literature with the simultaneous presence of two different fusion transcripts has been described: ETV6-RUNX1 and BCR-ABL1 in a child with B-cell acute lymphoblastic leukemia.

4. Emergencies and complications in the course of malignant diseases and their therapy in children - in 9 publications

Mediastinal compression is a relatively common and life-threatening condition in newly diagnosed malignant lymphomas and acute leukemias. In a series of articles, the

preconditions, etiology, specific aspects of clinical manifestations, clinical evolution and diagnostic challenges in patients with mediastinal syndrome are discussed. The modern guidelines for resuscitation, the principles for adequate minimally invasive diagnostics and immediate control of the symptoms of this emergency condition in pediatric oncology are summarized. Cases from our own clinical experience with critical mediastinal syndrome have been documented.

A series and single cases of complications from therapy have been reported following the introduction of modern intensive protocols for the treatment of acute leukemias and malignant lymphomas. The structure of infectious complications in febrile neutropenia in the course of therapy of malignant hemopathy and solid tumors was analyzed.

For the first time in the country the characteristics and risk factors for tumor lysis syndrome are presented and the frequency of aseptic osteonecrosis and transient hyperglycemia in the course of antitumor therapy is analyzed. Successful treatment with L-asparaginase-induced acute pancreatitis has been reported with Octreotide.

5. Benign hematological diseases - in 4 publications

Algorithms for behavior and criteria for timely consultation with a hematologist have been developed for doctors in pre-hospital care working with children with anemia and hemorrhagic syndrome.

For the first time in Bulgaria, clinical application of a protocol for induction of immune tolerance in a patient with inhibitory hemophilia has been demonstrated.

Cases of rare childhood anemia have been reported.

Data from all pediatric hematology centers in the country on the frequency, clinical manifestation and behavior of Fanconi anemia in childhood were summarized and reported.

Learning load: For the last 5 years (2015-2020) Dr. Belcheva has 1210 hours (average 242 hours per year, with a norm of 220 hours), of which 28 hours of lectures (6 hours of Bulgarian medical students and 22 hours of English-speaking students) and 1182 hours of seminars (all of Bulgarian students). The total teaching experience of Dr. Belcheva is 28 years and 10 months.

From the scientometric indicators for holding the academic position of "associate professor", presented by Dr. Belcheva:

1. Scientific production covering the minimum scientometric requirements - total number of points 259.5 with a mandatory minimum of 200 points.
2. Citation, reflecting the scientific activity of the candidate - total number of points 210.
3. Full-text publications in scientific journals and collections, outside the minimum scientometric requirements - total number of points 143.5.
4. Presented publications for obtaining the educational and scientific degree "Doctor" - total number of points 43.57 with a minimum of 30 points.

The candidate has active scientific accounts in Google Scholar, ORCID, ResearchGate and SCOPUS Author ID.

General assessment of Dr. Belcheva's compliance with the mandatory conditions:

After analyzing the evidence presented in the competition, I can conclude that Dr. Belcheva meets the mandatory scientometric indicators according to the regulations for the academic position of "Associate Professor". I believe that the scientific and applied value of Dr. Belcheva's work and her modern approach characterize her as an excellent pediatrician and specialist in pediatric hematology and oncology, able to work in a team with in-depth knowledge and experience in the main areas of pediatrics, a teacher with a lot of experience. Her workload, the scientometric indicators, as well as its ability to transfer its knowledge to the young colleagues, fully meet the requirements of the Law of academic degrees of the Republic of Bulgaria and the regulations for its application in MU-Varna for awarding the academic position "Associate Professor".

Conclusion: I recommend to the members of the respected scientific jury to award Dr. Milena Ivanova Belcheva, MD the academic position "Associate Professor".

June 20, 2021
Sofia

Assoc. Prof. Dr. Boryana Avramova, MD

