

МЕДИЦИНСКИ УНИВЕРСИТЕТ-СОФИЯ
КАТЕДРА ПО ПЕДИАТРИЯ
ИЗХ. № 98 / 08. 09. 2023

To the Chairman of the Scientific Jury,
Appointed by order No. R-2015/13.07.2023
of the Rector of the Medical University Plovdiv
15A Vassil Aprilov Blvd
4002 Plovdiv, Bulgaria

According to your Protocol No. 1/ 24.07.2023.

REVIEW

МЕДИЦИНСКИ УНИВЕРСИТЕТ
ПЛОВДИВ
Вх. № Р-0098 / ... 08. 09. 2023 .г.

For the promotion to the academic position "Associated Professor" in the field of "Pediatrics"

By Prof. Ivan Olegovich Litvinenko, MD, Department of Pediatrics at Medical University Sofia,
Head of the Children's Neurology Clinic at Specialized Childrens' Hospital "Prof. Ivan Mitev" - Sofia

I have been appointed as a member of the Scientific Jury by Order No. R-2015/13.07.2023, according to Art. 4, para. 2 and Art. 25 of the Law on the Development of the Academic Staff in the Republic of Bulgaria and Art. 57 para. 3 of the Regulations for the implementation of the law (ZRASRVB), in connection with the procedure for the occupation of the academician position "ASSOCIATED PROFESSOR" in the scientific specialty "Pediatrics", field of higher education 7. Health care and sports, professional direction 7.1. Medicine at the Department of "Pediatrics and Medical Genetics" for teaching Bulgarian and English-speaking students – two, part-time, announced in State Gazette, issue no. No. 32 of 04/08/2023.

The candidate in the competition is Dr. Hasan Aliev Burnusuzov, PhD.

The review of the materials is based on the requirements of the applied law (ZRASRB), the Regulations for its application, as well as the Regulations for the terms and conditions for acquiring scientific degrees and occupying academic positions (AP) and Qualitative criteria for the development of the academic staff of MU-Plovdiv. The documents are presented according to the requirements of the regulations, well arranged, in an excellent aesthetic appearance and supported by the necessary evidentiary material.

Brief biographical data and professional development

Dr. Hasan Burnusuzov graduated from the Plovdiv English Language High School, and graduated as a Master of Medicine in 2007 at the MU-Plovdiv. He began his medical practice as a resident in a mobile team - emergency care at the Cytomedika Medical Center - Plovdiv. From 2008 to 2010 is a resident doctor

at Vela Medical Center. From 2010 until now, he is a specialist pediatrician and clinical immunologist, and currently- Ch. Assistant Professor at the Clinic of Pediatrics, Oncohematology Unit, Department of Pediatrics and Medical Genetics at the Medical University of Plovdiv; and the Laboratory of Clinical Immunology. In 2014, he acquired the specialty of Pediatrics, and in 2022 – Clinical Immunology. In 2017, he defended his doctorate degree with a dissertation on the topic: "Flow cytometric monitoring of minimal residual disease in children with acute lymphoblastic leukemia".

Dr. Burnusuzov works in a team (in the emergency room and the children's polyclinic, in an outpatient office, in the Pediatrics Clinic and the pediatric oncohematology unit, as well as in the Immunology Research Center and the Clinical Immunology Laboratory at the Department of Microbiology and Immunology. He works together with colleagues from the National Research Center for Immunology, the Central Clinical Laboratory, the Medical Simulation Training Center and other units of the MU-Plovdiv. BFM ALL FLOW MRD- SG, headed by Doz. Dr. M. Dvorak from St. Anna CCRI- Vienna, Austria.

Dr. Burnusuzov is fluent in written and spoken English, German and Turkish.

Membership in organizations: Bulgarian Medical Association; Bulgarian Pediatric Association; Bulgarian Medical Society of Pediatric Oncohematology; Bulgarian Association of Clinical Immunology; European Society for Pediatric Oncology - SIOPE; I-BFM ALL FLOW MRD SG network; He is a section editor of Folia Medica journal.

Research activity

In the current competition, Dr. Burnusuzov presents his scientific works as follows: One monograph, total number of publications - 32 (first author in 14 of them, second author in 8, and third and subsequent author in 10 works, participation in educational textbook.

1. Monograph "Primary immune deficiencies with predominant deficiency of antibodies";
2. Of the original articles, 4 have an impact factor - the total impact factor is 17.321;
3. There are 14 original articles in scientific periodicals referenced and indexed in world-famous databases;
4. Original articles in non-referenced editions with scientific review are 18;
5. He is involved in the translation from English of the Hematological Diseases chapter from Illustrated Textbook of Pediatrics, Fifth Edition by Tom Lissauer and Will Carroll, Editor of the Bulgarian edition is Miroslava Bosheva.
6. He has presented reports at scientific events at home and abroad. Dr. Burnusuzov has participated with scientific reports in 4 international congresses, and 3 reports with abstracts have been published, one in journals with an impact factor.
7. There are five reviews in Folia Medica Journal, ISSN 0204-8043, online ISSN 1314-2143, <https://foliamedica.bg/>: 1. Palma S, Mazzone L, Roversi MF, Botti C, Monzani D, Berardi A, Genovese E (2021) Unexpected hearing improvement after treatment with valganciclovir in a child with congenital cytomegalovirus infection. Folia Medica 63(2): 297-301. <https://doi.org/10.3897/folmed.63.e54665>; 2.

Viral-Induced inflammation can lead to adverse pregnancy outcomes-in copy editing; 3. Impact of risk factors on growth of children from families with atopy during their first 1000 days; 4. Secondary Acute Myeloid Leukemia and de novo Acute Myeloid Leukemia with Myelodysplasia Related Changes - Close or Complete Strangers?; 5. Cases of acute hemiparesis in children

Dr. H. Burnusuzov's scientific interests can be grouped into:

- I. Hematology
- II. Immunology
- III. Immunoprophylaxis - vaccines
- IV. Genetic and rare diseases
- V. Basic Sciences

Citations

According to the presented materials and references, Dr. Burnusuzov has 24 citations in the Scopus and Web of Science databases, 2 citations in monographs and peer-reviewed collective volumes in foreign language publications and 1 citation in a non-referenced scientific publication.

Dr. Hasan Burnusuzov has a h-index – 3 (Scopus).

Participation in scientific projects

Dr. Hasan Burnusuzov participated in a total of 5 national projects, 4 intra-university projects (IUP) and one in cooperation with MU-Sofia, and an official report was presented for all projects.

Teaching Activity:

According to the official reference, Dr. Burnusuzov has a total academic load of classroom employment, scientific activity and extracurricular activity in the amount of 508 hours for the academic year 2019-2020, 1322 hours for the academic year 2020-2021 at the Department of Pediatrics and 269 hours at the Department Microbiology and Immunology, 869 hours for the academic year 2021-2022 at the Department of Pediatrics and 58 hours at the Department of Microbiology and Immunology and 112 hours at the Medical Simulation Training Center, which exceeds the requirements.

As a teacher at the Medical Simulation Training Center of MU-Plovdiv (MSTC) (P 32.1.4), Dr. Burnusuzov participated in the development and implementation of part of the English-language pediatric curricula at the MSTC, thus helping to improve the simulation training in pediatrics (P 31.1. 2)., which is innovative for Bulgaria. This is evidenced by the accreditation of MSTC by the American College of Surgeons.

Contributions that were outlined after reviewing the scientific work of Dr. Hasan Aliev Burnusuzov, to which I would like to attach particular importance, are:

I. Contribution to the field of clinical immunology of an original and scientifically applied nature:

1. Dr. Burnusuzov's monograph "Primary immune deficiencies with predominant deficiency of antibodies (humoral immune deficiencies)" is dedicated to the most common group of primary immune deficiencies - humoral. The book has an impressive volume (235 pages) and covers two parts. The first is an overview of antibody-predominant PID. Along with historical data, the epidemiology, etiology, pathogenesis, and classification of PID are presented. Their clinical picture is detailed. A significant place is devoted to genetic defects and signaling pathways for the development of immune deficiencies. Next comes the part on the treatment of humoral immune defects and prevention of infectious complications. Of particular interest is the chapter discussing vaccines and humoral immune defects, given its usefulness to any physician. In the second part, based on his own experience, Dr. Burnusuzov discusses specific nosological entities – agammaglobulinemia of Bruton, autosomal and transient childhood agammaglobulinemia; the selective Ig A and Ig G deficiencies; common variable immunodeficiency (CVID). The causes of severe and recurrent course of some viral infections, including COVID-19 and chicken pox, have been described. After each illness, the author presents clinical cases of patients of the Pediatric Clinic of "St. George" University Hospital - Plovdiv and makes valuable clinical summaries. The monograph can be used not only by doctors in the relevant specialties, but also by students and doctoral students, as it enriches our knowledge on this interesting, albeit rare, group of immune-mediated diseases.

2. The study of primary immune deficiencies, with particular attention paid to the screening of infants with acquired CMV infection (P 13.5) or "signal" pneumocystis pneumonia (P 13.10, 14.5), as well as the diagnosis and treatment of disorders in the oxidative burst or congenital immunity (P 14.6, 14.10). Some of these issues (screening, diagnosis and treatment), especially in patients with disorders of humoral immunity, are also discussed in detail in the monograph (P 10).

II Hematology

1. For the first time in Bulgaria, a systematic prospective study of MRD in children with acute lymphoblastic leukemia (ALL) was conducted, using a modern, highly sensitive eight-color multiparameter flow cytometric (MP FCM) methodology (P 9).

2. For the first time in our country, the eight-color MP FCM methodology for monitoring MRD in children with ALL has been standardized and approved. Eight-color MP FCM was found to have sufficient informativeness and reliability to be used as a routine stratification criterion in children with acute lymphoblastic leukemia (P 9, P 13.13).

3. The criteria determining the quality of the results of the eight-color MP FCM methodology have been specified, which contributes to unifying the reliability of our laboratory results with those of international standardized laboratories. The laboratory of clinical immunology of UMBAL "St. Georgi" Plovdiv, successfully participated in all annual external assessments of the quality of the research, within the

international scientific group for the study of minimal residual disease by flow cytometry - I-BFM ALL FLOW MRD SG network (P 13.4).

4. For the first time in Bulgaria, as part of the pediatric oncohematology team, the application of anti-GD2 immunotherapy was described in patients with metastatic, GD2-positive Ewing's sarcoma (ES) or Ewing-like sarcoma (P 13.2).

5. The correlation between persistent MRD, determined by MP FCM, and other prognostic markers (clinical and laboratory) during the induction treatment were analyzed, as well as the interrelationships between MRP levels, and the dynamics of the blast population during the course of treatment were specified, as well as the role of therapeutic immunophenotypic modulation as a factor complicating the analysis (P 9, P 13.13).

6. The new possibilities for increasing the sensitivity and specificity of MP FCM were examined, thanks to the PERIMED project and the purchase of modern equipment, as well as the IUP, together with the Department of Medical Microbiology and Immunology, a fourteen color methodology for the examination of MRD in ALL, significantly improving the quality of the examination (P 14.1, P 14.16).

7. Thanks to a IUP with a team from the Department of Medical Biology, the clinical significance of anti-L-asparaginase antibodies in relation to the relapse-free survival of children with ALL was analyzed, facilitating the implementation in the practice of their routine examination (P 14.4).

8. On the basis of another IUP and together with the Oncology Clinic, the role of anti-neuronal antibodies in paraneoplastic syndrome is being studied, and the topic is also a dissertation work of a doctoral student from the Department of Medical Microbiology and Immunology (P 20).

9. Based on the available medical literature and the practice in the Pediatrics Clinic of UMBAL "St. Georgi", a number of algorithms and recommendations for behavior in children with thrombocytopenia (P 13.6, 13.14, 14.9, 14.14), cardiopulmonary resuscitation (P 14.12) and acute hemolysis (P 14.13) have been compiled and published.

III Contributions of a theoretical nature

1. Through basic scientific research on cell metabolism, the role of Atovaquone on cALL cells in vitro has been demonstrated, finding a significant reduction in basal respiration and ATP levels, reduced proliferation, cell cycle arrest and induction of apoptosis. These phenomena indicate an enhanced antileukemic effect, especially when Atovaquone is combined with standard chemotherapeutics or with a corticosteroid in in vitro models (P 13.7) and could be used in subsequent

Dr. Hasan Burnusuzov's clinical-diagnostic activity gives him the opportunity to meet a variety of general pediatric pathology and such in the field of oncohematology and clinical immunology, which is reflected in his scientific output. He also gets rich theoretical training, which allows him to pass on the acquired knowledge and personal experience to future doctors.

CONCLUSION

Dr. Hasan Aliev Burnusuzov fully meets the criteria and scientometric indicators defined in the Law and the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at the MU-Plovdiv- for holding the academic position "ASSOCIATED PROFESSOR". He has significant scientific and practical contributions, solid scientific output and great teaching experience.

I propose to the Honorable Scientific Jury to give a positive vote for awarding the scientific position of "ASSOCIATED PROFESSOR" to Dr. Hasan Aliev Burnusuzov, PhD.

Reviewer:

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

