To the Chairman of the Scientific Jury, Appointed by Order No P-109-440 / 05.12.2024 of the Rector of the Medical University - Varna

### **STATEMENT**

by Prof. Tanya Vasileva Strateva, MD, DMSc

Department of Medical Microbiology "Corr. Mem. Prof. Ivan Mitov, MD, DMSc"

Faculty of Medicine, Medical University of Sofia

**Regarding:** Contest for the occupation of the academic position "Associate Professor" in the field of higher education 7. *Healthcare and Sports*, professional direction 7.4. *Public Health* in the specialty "*Public Health Management (Clinical Microbiology)*" for the needs of the Department of Microbiology and Virology, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna, promulgated in the Official Gazette, No. 85 of 08.10.2024

**Procedural matters:** The only admitted applicant, **Senior Assist. Prof. Denis Sunay Niyazi, MD, PhD,** submitted **all the necessary documents** for participation in a contest for occupying the academic position "Associate Professor" in accordance with Art. 126. (1) of the Regulations on the Development of Academic Staff (RDAS) at the Medical University of Varna / 08.07.2024.

I declare that I have no conflict of interest within the meaning of paragraph 1, item 3, and item 5 of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB) with the applicant for the position of Associate Professor.

## BIOGRAPHICAL DATA AND CAREER DEVELOPMENT

Senior Assist. Prof. Denis Sunay Niyazi, MD, PhD, graduated with honors in 2018 from Medical University "Prof. Dr. Paraskev Stoyanov" – Varna. In the same year, after successfully passing a competitive examination, he was appointed as an assistant professor at the Department of Microbiology and Virology, Faculty of Medicine, Medical University - Varna. In 2022 he defended his dissertation thesis entitled "Study on bacteremias and invasive mycotic infections in patients after autologous and allogeneic hematopoietic stem cell transplantation" and obtained the educational and scientific degree "Doctor" in Microbiology (PhD). A year later, he obtained the specialty of clinical microbiology after an impressive

performance in the state examination. From 2023 to the present, the applicant has held the academic position of "Senior Assist. Professor" in the Department of Microbiology and Virology. In 2023, Dr. Denis Niyazi graduated with a Master of Public Administration, Health Management from the Faculty of Management and Administration, University of National and World Economy in Sofia.

Dr. D. Niyazi is a member of the Bulgarian Association of Microbiologists, the Bulgarian Medical Association of Hematologists, the European Society of Clinical Microbiology and Infectious Diseases, and the Bulgarian Medical Association.

#### SCIENTIFIC AND RESEARCH ACTIVITY

The scientific works of Dr. D. Niyazi address important clinical and medico-biological issues in three main thematic areas: "Infectious Complications and Microbial Resistance in Patients with Hematologic Malignancies (HMD) and Hematopoietic Stem Cell Transplantation (HSCT)," "SARS-CoV-2 and COVID-19," and "Mycotic Infections."

In the current contest, he participated in a total of **22 scientific papers** to meet the minimum research requirements for the position of Associate Professor in the field of higher education 7. *Healthcare and Sports* and professional field 7.4. *Public Health*, as follows:

- o Dissertation thesis for the award of the educational and science degree "Doctor";
- Habilitation thesis monograph;
- o 17 full-text publications in scientific journals, refereed and indexed in world-renowned databases of scientific information (Scopus, Web of Science);
- o *3 full-text publications* in non-refereed peer-reviewed journals.

In 13 of the research papers (59.1%), Dr. Niyazi was the first or sole author, and in 5 of them (22.7%), he was the second author, which clearly highlights his leading role in creating the study design, implementing the experimental work, and writing the manuscripts. The overall publication IF was high (17.57). The *h*-index in the candidate's Scopus and Web of Science profiles is 3.

The results of Dr. Niyazi's active research have been presented at 17 scientific forums, 5 international and 12 nationals. He won an award (first place) for a short oral presentation at an international conference in 2021. In the period 2019-2024, he participated in 3 research projects under the Science Fund of MU – Varna, in one of which he was the principal investigator.

The scientific papers with which the applicant participates in this contest have been cited 16 times in refereed and indexed scientific journals in Scopus/Web of Science and 3 times in peer-reviewed journals.

**Significant contributions** of an original, confirmatory, and applied nature have been achieved in all scientific fields. I would like to distinguish the following:

- The monographic work presents the current status of the problem "Invasive aspergillosis" in patients after hematopoietic stem cell transplantation. The author provides comprehensive scientific information on the etiologic agent, clinical manifestations, risk factors for the disease in these immunocompromised patients, the diagnostic algorithm, and recommendations for the treatment and prevention of invasive aspergillosis based on an impressive number of literature sources.
- For the first time in Bulgaria, a study was conducted on the incidence, risk factors, and outcome of bloodstream infections in patients after HSCT. A 35% cumulative incidence of bacteremias was found in this group of high-risk patients. The mean time period from transplantation to the onset of bacteremia was 8 days. The lethality by day 30 after HSCT was 23%, and the 4-month survival rate was 86.5%. The type of underlying disease (leukemia and lymphoma) and previous HSCT were the identified factors with a negative effect on survival.
- The *in vitro* activity of the ceftazidime-avibactam combination antibacterial against strains resistant to third-generation cephalosporins and/or carbapenems isolated from blood cultures and/or fecal samples of patients undergoing HSCT was studied. Multidrugresistant (MDR) microorganisms were isolated from the clinical specimens of 31% of the patients followed, and the genetic determinants associated with resistance to broad-spectrum cephalosporins and carbapenems were determined.
- A large-scale study was conducted at the University Hospital "St. Marina" on the dynamics of COVID-19 in the period May 2020 April 2021 and on the role of some demographic factors in the development of the disease. A total of 40% of the samples tested were positive, with the most affected age group being 60–79 years. Male gender was confirmed as a risk factor in the 20-59 age group, and in young patients under 19, female gender was identified as a predisposing factor for infection.
- The significance of so-called "suspicious" results when using the PCR method for the diagnosis of COVID-19 (detection of only one gene in the clinical sample) was evaluated, and recommendations for their interpretation based on clinical symptoms and patient history were proposed.
- For the first time in Bulgaria, a case of mucormycosis after COVID-19 was described in a 66-year-old male patient presenting with rhino-orbito-cerebral form (ROC). The role of viral infection and elevated blood glucose levels as risk factors for ROC mucormycosis is confirmed, as is the need for a prompt and adequate multidisciplinary diagnostic process.
- The key role of invasive mycotic infections (mucormycosis, aspergillosis, and pneumocystosis) in the etiological spectrum of infectious complications in patients with HMD and after HSCT has been demonstrated.
- The aggravating role of combined infectious complications (mycotic + viral) on disease outcome in patients with HMD and after HSCT has been demonstrated.

Analysis of the scientific-metric indicators of Senior Assist. Prof. Denis Sunay Niyazi, MD, PhD, for compliance with the minimum national requirements according to the LDASRB, RALDASRB, and RDAS of the Medical University of Varna for the position of Associate Professor

Group "A": Total 50 points (required 50 pts.)

Dissertation for awarding of the educational and scientific degree "Doctor" (50 pts.)

Group "B": Total 100 pts. (required 100 pts.)

*Indicator "B3". Habilitation thesis: monograph* entitled "Invasive aspergillosis in patients after hematopoietic stem cell transplantation."

**Group "Γ": Total 384.71 pts.** (required 200 pts.)

The points were obtained from **20 full-text publications**, of which 17 were in scientific journals, refereed and indexed in world-renowned databases of scientific information (indicator " $\Gamma$ 7"), and 3 were in non-refereed peer-reviewed journals (indicator " $\Gamma$ 8").

Group "Д" ("Д10" and "Д12" indicators): Total 255 pts. of citations (required 50 pts.).

The accumulated points in this group are **5 times more than the minimum required** for the position of Associate Professor in the professional field 7.4. Public Health, both at MU – Varna and nationally.

In summary, the calculations concerning the minimum requirements for the position of Associate Professor in the respective professional field at MU – Varna show 789.71 points, which exceeds the required minimum of 400 points.

#### EDUCATIONAL AND TEACHING ACTIVITY

Dr. Niyazi's total teaching load for the last 5 academic years is 1308 teaching hours (average 261.6 academic hours per year) and exceeds the norm (220 academic hours per year). He conducts practical classes in medical microbiology for medical, dental, and pharmacy students in Bulgarian and English (60%). Since 2024, he has also been involved in conducting postgraduate courses for specialist doctors in clinical microbiology.

# **CONCLUSION**

The complex characteristics of the scientific research and teaching activity of Senior Assist. Prof. Denis Sunay Niyazi, MD, PhD, is at a high level, with the presence of significant original and applied contributions. In my personal opinion, the candidate is an erudite young scholar and a respected teacher, possessing excellent theoretical training and diagnostic

expertise in clinical microbiology, infectious complications in immunocompromised patients, and microbial drug resistance. He is distinguished by modesty, professional ethics, diligence, and innovative thinking.

The scientific-metric indicators of Senior Assist. Prof. Denis Sunay Niyazi, MD, PhD, meets and even exceeds the minimum requirements of the LDASRB and the current RDAS of the Medical University – Varna for the position of Associate Professor in the professional field 7.4. Public Health. As a member of the Scientific Jury, I confidently give my **positive** assessment of his election as **Associate Professor** in the specialty "Public Health Management (Clinical Microbiology)" for the needs of the Department of Microbiology and Virology of the Faculty of Medicine at Medical University "Prof. Dr. Paraskev Stoyanov" – Varna.

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

Date: 10.02.2025

Statement prepared by: .....

Sofia

/Prof. Tanya Strateva, MD, DMSc/