То The Chairman of the Scientific Jury,

determined by order 15-03-123 # 2/15.06.2023

of the Executive Director of "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC

*Attached I present:* Opinion

* According to the competition for the academic position "Associate Professor" in the field of Higher Education 7. "Health and Sports", Professional direction 7.1 "Medicine", in the scientific specialty "Cardiovascular Surgery", for the needs of the Cardiac Surgery Clinic " Acibadem City Clinic “UMHAT Tokuda" JSC
* Announced in the State Gazette no. No. 37/25.04.2023
* By order No. 15-03-123#2/15.06.2023 of the Executive Director and Procurator of " Acibadem City Clinic UMHAT Tokuda" JSC, I have been appointed as a member of the Scientific Jury for the said competition. At the first non-attendance meeting of the Scientific Jury, a decision was made to prepare an opinion.

by Prof. Dr. Iliya Petrov Lozev, MD, DSc

External member of the Scientific Jury

Scientific specialties: "General surgery" and "Vascular surgery".

Institution: Head of the Operating Block at the Clinic for General, Abdominal and Vascular Surgery at the Ministry of the Interior, Sofia

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**of Dr. Ivilin \_ Plamenov Todorov , PhD \_**

The opinion was drawn up in accordance with the requirements of the criteria and indicators for occupying an academic position "Associate professor", according to ZRAS-RB, the Rules for its implementation and the Regulation for occupying an academic position "Associate professor", adopted in the Regulations for the conditions and procedure for acquiring scientific degrees and occupation of academic positions at "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC.

OPINION

Regarding the competition for the academic position "Associate Professor" in the field of Higher Education 7. "Health and Sports", Professional direction 7.1 "Medicine", in the scientific specialty "Cardiovascular Surgery", for the needs of the Cardiac Surgery Clinic " Acibadem City Clinic " UMHAT Tokuda" JSC.

by Prof. Dr. Iliya Petrov Lozev, MD, DSc

External member of the Scientific Jury, acc. order 15-03-123#2/15.06.2023 of the Executive Director of "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC

on

Dr. Ivilin Plamenov Todorov, PhD ,

Cardiac surgeon at the Cardiac Surgery Clinic of "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC and part-time assitant at the Faculty of Medicine, Sofia University "St. Kliment Ohridski".

1. **Career profile of** **Dr. Ivilin Plamenov Todorov , PhD.**

Dr. Ivilin Plamenov Todorov was born on 30.07.1982.

1. **Education and training:**
   1. Higher education

* 2001 - 2007, Medicine - Sofia Medical University, Faculty of Medicine.
* 07.2017 - 01.2019, Health Management - Sofia Medical University, Faculty of Public Health.

* 1. Acquired medical specialties
* 2014 - Cardiac surgery.

1. Academic development:

* From 10. 2007 until now, cardiac surgeon at the Cardiac Surgery Clinic, Acibadem City Clinic UMHAT Tokuda, Sofia.
* From 2019 to the present, part-time assistant at the Faculty of Medicine, Sofia University "St. Kliment Ohridski".
* From 22.10 2019 to 04.02.2022 doctoral study of self-study in the Clinic of Cardiac Surgery Acibadem City Clinic UMHAT Tokuda, Sofia .
* 02/04/2022 Acquired PhD in scientific specialty cardiovascular surgery

1. Professional specializations at home and abroad

* 09. 2009 - 12.2014 Specialization in cardiac surgery at the Medical University of Sofia, Faculty of Medicine.
* 08. 2012 - 09. 2012 University Hospital Centre Zagreb , Zagreb Croatia - Specialization in cardiac surgery.
* 09. 2013 - 10.2013 Department of Cardiac Surgery of Medical University Innsbruck , Austria - Specialization in minimally invasive valve cardiac surgery .
* 06. 2019 - 08.2019 UNIVERSITATS KLINIKUM HEIDELBERG, city of Heidelberg, Germany - Specialization in pediatric cardiac surgery .

1. Research activity
2. Quantitative evaluation of the works for "associate professor" presented by Dr. Ivilin Plamenov Todorov, PhD :

The scientometric data of the candidate, evaluated in their entirety, are in full compliance and exceed those recommended in the normative criteria and indicators for evaluation by the Scientific Jury when holding a competition for "associate professor" at "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC.

Dr. Ivilin Plamenov Todorov, PhD , submits 25 published scientific papers for participation in the competition. Scientific activity is represented by participation in international European and World congresses and symposia - 3; Participation in national congresses and symposia - 9. After excluding the dissertation work from the total number of publications presented, 24 scientific papers remain for review, including 2 monographs, 6 of the publications are publications in journals with an impact factor, the total impact factor is 10.473 . In the presented citation reference from the Medical Library of the MU - Sofia ( Exh.N 245/12.05.2023) 11 open citations are indicated - Bulgarian 9, and in the Scopus database - 2 citations , in Web of Science - 1 citation .

1. **Evaluation of educational and methodological and teaching activities of Dr. Ivilin Plamenov Todorov, PhD . for the 2019 period** **- 2023 at MU-Sofia:**

Dr. Todorov is a part-time assistant at Sofia University-Sofia, Faculty of Medicine. An official reference for the educational and teaching activity of Dr. Todorov as a part-time assistant at the Faculty of Medicine of SU "Kliment Ohridski" is presented:

During the academic year 2019/2020: exercises on "Surgical diseases" for students 3-6 course of medicine - 24 study hours;

During the academic year 2020/2021: exercises on "Surgical diseases" for students 3-6 course of medicine - 6 study hours;

During the academic year 2021/2022: exercises on "Surgical diseases" for students 3-6 course medicine - 39 study hours.

1. **Evaluation of the medical and diagnostic activity of** **Dr. Todorov .**

Dr. Todorov is an excellently trained teacher and surgeon, possessing broad theoretical knowledge, in-depth knowledge of the diagnosis and treatment of cardiac patients.

1. **Scientific interests and scientific contributions**

In the presented monograph: "PROSTHETIC VALVE ENDOCARDITIS - CLINIC, DIAGNOSIS AND TREATMENT", dedicated to the main aspects of the clinic, diagnosis and operative treatment in patients with a prosthetic valve endocarditis , significant scientific contributions are presented, and the presented algorithm and the main steps in performing the various types of surgical interventions should be noted in particular. The conclusions and recommendations made for the daily practical activity of cardiac surgeons, pointing to correct concrete solutions for diagnosis and treatment, have significant scientific and applied value. The monograph also presents the multidisciplinary model for the diagnosis, medical and surgical treatment of the prosthetic valve endocarditis, and the challenges and solutions in patients with PVE when the infection involves a prosthetic valve are discused in depth, as the risks of repeat cardiac surgery can be significant. The history of PVE is traced and the current literature on the management of specific valvular involvement (ie, aortic and/or mitral ) is reviewed, and the challenges, issues, and outcomes that drive clinical decision-making in light of the most new and effective therapeutic approaches and the latest strategic and practical algorithms in the treatment of the disease.

Much of the candidate's publications are devoted to valve analysis prosthetics in valve patients endocarditis and the conditions for increasing the effectiveness of operative treatment. They are reflected in the candidate's scientific works related to surgical behavior and treatment in patients with early and late prosthetic valve endocarditis . The duration of hospitalization and survival in patients with a proven microbiological causative agent treated with antibiotics according to an antibiogram and those without an isolated causative agent treated empirically were studied. The degree of sensitivity and specificity of the most available diagnostic imaging studies (TEE and TTE) in the diagnosis of the prosthetic valve was established. endocarditis and its complications. A comprehensive study and comparative analysis of outcomes in deceased and discharged patients was conducted and a state-of-the-art prognostic model was created for factors predicting an increased risk of death in patients with a prosthetic valve endocarditis .

Applied described for the first time in Bulgaria is an angiographic method balloon LIMA occlusion, with the aim of optimal myocardial protection, as well as improving operative results and patient survival in surgical treatment of PVE and prior coronary surgery with a functioning LIMA-LAD graft. A high rating should also be given to innovative approaches introduced by the author to reduce complications and improve postoperative results in reoperations in heart surgery.

The publications devoted to the surgical treatment of the native valve endocarditis, as a significant disease with a poor prognosis without adequate treatment, are devoted to important issues such as the type of valve prosthesis used for the development of early PVE, the degree of correlation between ultrasound and operatively established data in the diagnosis of the infectious valve endocarditis and its complications. The presented model for evaluation and selection of the optimal moment for surgical intervention in patients with native valve endocarditis can be highly evaluated and applied in the daily practical activity of cardiac surgeons .

The scientific and applied contributions in the scientific works dedicated to the surgical difficulties and the experience of the team in a patient with Marfan syndrome and severe pectus also deserve attention, excavatum, the proposed cardiac surgical approach for extracorporeal perfusion through the use of two parallel connected oxygenators , as an effective, easy and safe method in patients with "extreme" perfusion needs, providing the surgical team with a sufficient oxygenator "reserve", for the implementation of an optimal and safe surgical intervention.

Dr. Todorov's scientific activity was realized by participating in scientific forums, where he presented the experience of the clinic for a fifteen-year period in the field of reoperations , and the surgical treatment of many rare complications related to invasive methods of treatment and rare cardiac anomalies.

The evaluation of Dr. Ivilin Todorov's scientific works is that they are sufficient in number and quality, they were published in authoritative specialized scientific publications. The scientific works do not repeat those presented for the acquisition of the educational and scientific degree "PhD- ". There is no proven plagiarism in the scientific works, which meet and exceed the minimum national requirements for occupying the academic position of "Associate Professor".

1. **Conclusion**

The analysis presented by Dr. Ivilin Plamenov Todorov, PhD, documents and scientific works revealing the nature and results of his scientific research, teaching and organizational activities, unequivocally show that he fully meets the requirements for holding the academic position of "associate professor". I believe that the candidacy of Dr. Ivilin Plamenov Todorov, PhD fully meets the conditions of ZRASRB and the relevant quantitative and qualitative criteria presented to the candidates for this academic position, including the internal ones for "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC.

Due to all the above data on the overall professional development and competence of the candidate, on his significant scientific output and teaching activity, I confidently give my positive assessment and recommend to the respected Scientific Jury to award the academic position of "Associate Professor" to Dr. Ivilin Plamenov Todorov, PhD , for the needs of "ACIBADEM CITY CLINIC UMHAT TOKUDA" JSC.

25.08.2023 Prepared the opinion:

Prof. I. Lozev, MD, DSc.