

OPINION

by Prof. Dr. Ms. Radeva Prakova-Vasileva, MD - Head of the "First Department of Internal Medicine and General Medicine" at the Medical Faculty of the Thracian University -Stara Zagora

Member of the Scientific Jury for the competition for the academic position "Associate Professor" in the field of higher education 7. "Health and Sports" in professional field 7.1 "Medicine" and scientific specialty "Clinical Laboratory" for the needs of the University "Prof. Dr. Asen Zlatarov ", Burgas, published in the State Gazette, issue 87 / 19.10.2021

The opinion is in accordance with the requirements of Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at the University "Prof. Dr. Asen Zlatarov ", Burgas and according to Order №RD-378 / 21.12.2021 of the Rector of the University.

For participation in the competition, documents have been submitted by one candidate - Ch. Assistant Professor Dr. Stoyanka Tancheva Ilieva, MD, PhD.

Dr. Stoyanka Tancheva Ilieva graduated High Medical Institute - Varna in 1986. From 1987 to 1989 she was an assistant in the Department of Physiology and Pathophysiology, and from December 1, 1989 and currently - a lecturer in the Department of Clinical Laboratory at MU-Varna. From 1989 to 2010 she worked as a doctor in the Central Clinical Laboratory of the University Hospital "St. Marina "- Varna. For two years (2010-2012) she was the manager of Specialized medical diagnostic laboratory "Kandilarov" Ltd. Varna. Since 2012 she has been the head of the clinical laboratory of St. Anna Medical Center Ltd., Varna. Dr. S. Ilieva has three clinical medical specialties - Clinical Laboratory (1993), Internal Medicine (1999), General Medicine (2002) and Specialty in Psychotherapy and Psychological Counseling (2018). There are two additional master's degrees - in "Health Management" from MU "Prof. Dr. Paraskev Stoyanov", Varna in 2007 and in "Psychology" from the Faculty of Law of Varna Free University "Chernorizets Hrabar "Varna in 2017.

In 2019, after successfully defending a scientific paper on "Pathophysiological aspects of active tubulo-interstitial bacterial nephritis according to clinical and laboratory data", Dr. S. Ilieva acquired PhD degree from Medical University "Prof. Dr. Paraskev Stoyanov", Varna. Fluent in written and spoken Russian, speaks English and French.

### **Research activity**

The scientometric indicators of Dr. S. Ilieva were evaluated on the basis of the documents submitted at the competition, which contain two scientific papers in the nature of a monograph, one of which is co-authored, 6 publications in scientific journals, referenced and indexed in a world-famous databases with scientific information, one of which Dr. S. Ilieva is the first author, 3 - the second and two - the third author. Of the materials presented for articles published in unrefereed journals, I accept the number of 14, 12 of which Dr. S. Ilieva is the first, one-second and third author. Participations in national and international scientific forums with posters and reports are 14.

The presented material concerning the citations is insufficiently accurate. In the attached report on the fulfillment of the minimum requirements, Dr. S. Ilieva noted 265 citations, all in peer-reviewed scientific journals. The number of citations in monographs and unrefereed journals is not presented. Another reference from the Scopus database lists 134 citations of 5 articles concerning experimental pathophysiological formulations in rats. The documentation attached to the competition does not contain a reference to the citations from the National Center for Information and Documentation or from the Central Medical Library of Medical University - Varna.

Dr. S. Ilieva has so far not participated in university, national or international research projects.

The main contributions in the presented materials from the research activity of Dr. S. Ilieva can be united in the following thematic directions:

**Scientific and applied contributions in the field of clinical laboratory in patients with acute and chronic kidney disease:** In a number of her publications, Dr. S. Ilieva studies the use of a number of clinical and laboratory indicators in the diagnosis, course and complications of

patients with acute and chronic urinary tract infections. European recommendations for urine protein testing have been introduced. The clinical significance of C-reactive protein in inflammatory processes in the upper and lower urinary tract has been proven, and the sensitivity of the method is 100%, but its specificity for the infectious localization of the process is low. Another study showed that CRP was a more sensitive indicator of the effect of treating infectious tubulo interstitial nephritis than a urine sediment study. Another clinical and laboratory indicator correlating with exacerbation of HP is  $\beta$ 2-microglobulin in urine. Disorders of lipid metabolism in combination with chronic pyelonephritis and CKD as a risk factor for accelerated atherosclerosis have been studied. Significantly higher levels of secretory IgA have been found in patients with end-stage chronic kidney disease undergoing chronic dialysis. The study of the chemical composition of stones in patients with chronic calculous pyelonephritis in Varna region found that 75% of kidney stones have a mixed chemical composition, 12% are pure urate, 7% are pure oxalate and 6% are phosphate. This confirms that the chemical composition of kidney stones is of great importance for avoiding invasive manipulations and surgical interventions and for a good prognosis of calculous pyelonephritis.

These contributions include the monograph on tubulo-interstitial bacterial nephritis and clinical and laboratory indicators related to the pathogenesis of the disease, diagnosis and monitoring of the effect of treatment, intended for a wide range of specialists.

**Scientific contributions in the field of pathophysiology:** Close collaboration with pathophysiologists is the basis of publications from experimental productions on rats. The results of these scientific articles are the subject of a number of citations by teams at home and abroad. The pathophysiological mechanisms of acute hematogenous pyelonephritis in rats, the role of melatonin in oxidative liver damage after experimental thermal trauma, and its effects on coagulation parameters were studied. In conditions of streptozotocin-induced diabetes in rats, the hypoglycaemic and hypolipidemic effects of *Aronia melanocarpa* fruit juice have been established.

The co-authored monograph "Hemostasis and thrombosis pathogenesis and laboratory" presents the latest interpretations of both the physiology of hemostasis and the pathophysiological aspects of its various disorders leading to diseases associated with its imbalance. The monograph notes the current minimum and maximum of laboratory tests that would prove the disease and are

useful in monitoring the effect of treatment. The monograph is aimed at physicians with various non-clinical and clinical specialties in medicine.

**Scientific and applied contributions to clinical practice:** A series of publications have described rare clinical cases that enrich clinical practice and contribute to their early diagnosis and treatment. An extremely rare case of thrombocytopenia after in vitro pregnancy has been presented, and an analysis of the clinical-laboratory constellation in Barter's syndrome has been performed as a leading factor in the diagnosis of this rare disease. A case of recurrent thrombosis of the retinal vessels and laboratory pathophysiology of the antiphospholipid syndrome (APS) have been described. Another study found that the reduction in prothrombin (PP) when stopping treatment with IAC was not a reason to suddenly stop taking Syntrom. A clinical and laboratory study of the diagnostic value of cardiac troponin I (cTnI) and MB-fraction of creatine kinase in patients with acute coronary syndrome shows that cardiac troponins can be used as a stand-alone diagnostic test for AMI, while MB-fraction of creatine kinase - in case of suspicion of repeated AMI.

#### **Teaching activities**

Dr. S. Ilieva is a lecturer with 34 years of experience at MU-Varna. She has led practical classes in the disciplines: pathophysiology, clinical laboratory, internal medicine and health management. She has participated in the publication of a number of textbooks and teaching aids concerning the training of students in the disciplines of Pathophysiology ("Pathological Physiology" - 2011) and Clinical Laboratory ("Tutor of Clinical Laboratory Tests" - 2020).

The documents on the competition do not present a reference for the study load of Dr. S. Ilieva in the last three years in the respective disciplines. The curricula are attached, one of which in a working version, in "Clinical Laboratory and Biochemistry" for the specialty "Midwife" from MU - Varna and in "Clinical Laboratory" for the specialty Medical Assistant from the Faculty of Public Health and Health Care at the University "Prof. Dr. Asen Zlatarov" - Burgas.

#### **Diagnostic and therapeutic activity**

Dr. S. Ilieva is a clinical doctor with 29 years of experience as a specialist in "Clinical Laboratory". She has a number of acquired postgraduate qualifications in our country - "Legal

regulation in healthcare" (2005), "Cytogenetic analysis" (2009), "Current issues in the clinical laboratory" (2010), "Sysmex HS 1000I" (2011)

### **Conclusion**

Dr. S. Ilieva is an established lecturer and clinician with interests in the field mainly of the clinical laboratory, she has all the necessary qualities and meets the criteria for holding the academic position of "Associate Professor" according to Law on the Development of the Academic Staff in the Republic of Bulgaria and Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at the University "Prof. Dr. Asen Zlatarov", Burgas. From the presented materials and references, Dr. S. Ilieva fulfills the minimum scientometric requirements for the academic position "Associate Professor": indicator A - 50 points, indicator B-100 points, indicator G-310 with a required minimum of 220 points, indicator D - above the required minimum of 60 points, and for indicator E-186.6 points at a minimum of 20 points.

This gives me a reason to vote positively for the election of Dr. Stoyanka Tancheva Ilieva, MD of the academic position "Associate Professor", in the scientific specialty "Clinical Laboratory" at the University "Prof. Dr. Asen Zlatarov", Burgas.

March 6, 2022.

St. Zagora

Prepared an opinion:

/ Prof. G. Prakova, MD, PhD /