

To the Chairman of the Scientific Jury  
appointed by Order № РД-378/21.12.2021  
of the Rector of Prof. Dr. Assen Zlatarov University, Burgas

### REFERENCE

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**Regarding:** Application for the academic position "Associate Professor" in the field of Higher Education 7. Healthcare and sports, professional field 7.1 Medicine in the scientific specialty "Clinical Laboratory" for the needs of Prof. Dr. Asen Zlatarov University, Burgas, announced in SG, issue 87/19.10.2021.

According to the decision of the Faculty Council of the Faculty of Public Health and Health Care, entered in the minutes 3571/15.12.2021 and order № РД-378/21.12.2021 of the Rector of Prof. Dr. Asen Zlatarov University, Burgas, the documents and the scientific papers of Dr. Stoyanka Tancheva Ilieva, DM, Assis. Prof. at the Department of Clinical Laboratory of Medical University, Varna and Head of Clinical Laboratory at Sv. Anna Medical Centre, Varna were presented. Dr. Tancheva is the sole candidate in the application for the academic position "Associated Professor" in the scientific specialty "Clinical Laboratory" for the needs of "Prof. Dr. Asen Zlatarov" University, Burgas.

Submitted documents (electronic and hard copy) have been prepared in accordance with the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for the conditions and procedures for acquiring scientific degrees and holding academic positions at "Prof. Dr. Asen Zlatarov" University, Burgas are fulfilled.

I declare no conflict of interest with the candidate.

## **Biographical data**

Dr. Stoyanka Tancheva Ilieva graduated from the Medical University, Varna in 1986 (Diploma №001279/1986). After completion she worked for a short period of time in a gynecological consulting room in the town of Loznitza, district of Razgrad. In 1987, after winning a competition, she became an assistant at the Department of Physiology and Pathophysiology at Medical University, Varna. Since 1989 she has been Assistant Professor at the Department of Clinical Laboratory at Medical University, Varna. In 1993 she acquired a specialty in Clinical Laboratory (Diploma №40922) followed by a specialty in Internal Medicine in 1999 (Diploma №005508), General Medicine in 2002 (Diploma №007405). Dr. Stoyanka Tancheva has also submitted two Master's Degree diplomas in Health management (Diploma №080165/2007 from Medical University, Varna) and in Psychology (Diploma №034125/2017 from Varna Free University) as well as a diploma in Psychotherapy and Psychological Counseling (Diploma № 000097/2018 from Varna Free University).

In 2019, Dr. Tancheva successfully defended her PhD on "Aspects of active tubulo-interstitial bacterial nephritis according to clinical and laboratory data" and was awarded the educational and scientific degree "Doctor" in Pathophysiology. She also completed the course "Legal regulation in healthcare" at Medical University, Varna in 2005, specializations in "Cytogenetic Analysis" at Military Medical Academy, Sofia in 2009, "Current issues in the clinical laboratory" at Medical University, Sofia in 2010, "Sysmex HS 1000" in 2011. She took part in the Second Scientific Session for students and teachers "Together in the face of the challenge of modern healthcare" as a lecturer.

## **Research activity and scientific contributions**

To apply for an academic position "Associate Professor", Dr. Tancheva has submitted a total of 25 scientific publications, 5 of which in English - 4 of them in international journals with impact factor (IF) and 1 article in a journal without impact factor; another one in Russian language and the rest are in national peer-reviewed journals. In the Author's reference for the contributions of the scientific works, Dr. Tancheva presents two summaries of publications after the dissertation defense. Eleven of the submitted articles are not connected with the PhD thesis for acquiring educational and scientific degree "Doctor". She is the leading author in 52% of all presented publications. The total IF of her publications is 3.609/ individual IF 1.077. Dr. Tancheva presents 16 participations in national and international scientific forums and conferences where she has an active part with an abstract or a scientific report. In 14 of her participations she is a leading author. Total IF from published abstracts is 0.837/individual 0.10. Total IF from articles and abstracts is 4.446/ individual 1.177. In the report presented by Dr. Tancheva there are total of 261 registered citations in English, Russian and Korean languages. Citations in journals, given Scopus and Web of Knowledge databases are with IF 175.807.

In 2014/15, Dr. Tancheva took part in the scientific-educational project "Students Practice" at Medical University, Varna. She is the co-author in the textbook "Pathological Physiology" with chapter "Etiology and pathogenesis of diseases of the blood system". She is also the author of "Tutorial in Clinical Laboratory-Tests" which is used in medical students training in Clinical Laboratory.

Dr. Stoyanka Tancheva Ilieva has been actively working in the field of clinical laboratory - in the areas of clinical laboratory diagnostics and clinical-laboratory analytics as well as in a number of other fields of medicine as a part of teams of different specialists.

Part of Dr. Tancheva's research interests are related to the laboratory diagnoses of some of the kidney diseases. Her interest in tubulo-interstitial bacterial nephritis (TIBN) is particularly deep and the defended dissertation for the acquisition of educational-scientific degree "Doctor" is dedicated to it. In this fascinating scientific work she created and followed up an experimental model of TIBN with rats. In addition, she conducted research on selected groups of people focusing on creating an algorithm for early laboratory diagnosis of the disease. The proposed algorithm of clinical-laboratory tests with active bacterial tubulo-interstitial nephritis (active pyelonephritis), a method for staining urine sediment with methylenblau - an easy, affordable and fast method, an alternative to phase-contrast active microscopy which reliably differentiates granulocyte leukocytes (glitter cells) in the urine sediment in patients with active TIBN are of a contributing nature. According to the author, urine testing is a promising analysis since to obtain material is non-invasive, easy and accessible. With good knowledge, skillful use of laboratory potential and careful interpretation of results, the diagnosis is often made directly, therapy is monitored and risk of complications assessed. The results from the dissertation are original and are published in a monograph on habilitation work entitled "Tubulo-interstitial bacterial nephritis-pathogenesis and laboratory", 2020 edition, volume of 210 pages, supported by two authoritative reviews. It is a stand-alone study on tubulo-interstitial bacterial nephritis which provides a modern reading of infectious diseases of the upper urinary tract. In essence, it presents the pathogenesis-laboratory connection of the processes being developed in this nosology.

Dr. Tancheva is a co-author of a monography, unrelated to her dissertation but dedicated to hemostasis-"Hemostasis and thrombosis - pathogenesis and laboratory", published in 2019. It constitutes a unified and systematic review of the current understanding of changes in hemostasis that are common in everyday medical practice. The book gives modern interpretations of the hemostasis physiology, the pathophysiological aspects of its various disorders leading to imbalance and related to it diseases.

In the field of clinical-laboratory analytics, Dr. Tancheva's works are related to introducing mostly applicable developments and mainly aiming at improving the clinical

laboratory work by implementing methods of good analytical reliability in order to ensure high quality laboratory results. The following have contributed: the performed follow up of the representativeness of the offered contemporary analytical methods for protein in the urine determination; the clinical significance of C-reactive protein analyzed by immunoturbidimetric method with inflammatory diseases of upper urinary tract; studying the possibility of testing for secretory immunoglobulin A (SIgA) in saliva with patients in the terminal stage of chronic kidney disease and replacement therapy.

One of the well-developed research lines of Dr. Tancheva is laboratory diagnosis of kidney diseases. She monitors and describes laboratory lipid abnormalities of patients with chronic acute pyelonephritis and chronic renal failure, assesses the level of acute phase reactant, C-reactive protein, to monitor the treatment of interstitial bacterial nephritis, participates in a study of the chemical composition of concretions in patients with chronic pyelonephritis in Varna region.

Dr. Tancheva's good medical training and her broad scientific interests are linked to a clinical laboratory study of the cardiac troponin I (cTnI) diagnostic value, to her participation in hepatitis B and C laboratory screening study of the employees at St. Marina University Hospital, Varna and also to the description of clinical laboratory analysis as a leading factor in rare diseases diagnosis (BARTER's syndrome).

In some of her publications, Dr. Tancheva remains true to her scientific interest in hemostasiology. She introduces a severe case of thrombocytopenia after in vitro pregnancy using modern laboratory techniques and competent interpretation of the results; describes some peculiarities with monitoring the indirect anticoagulants treatment based on the laboratory obtained results of a study; retrospective study of thrombocytopenia and thrombosis as a result of polyvalent anti-COVID therapy and COVID-19 vaccine.

Of particular scientific interest are the experimental studies with rats to evaluate the role and effect of melatonin including its role in oxidative liver damage. It is no coincidence that the published results arouse interest and are cited in a number of articles published in impact factor journals. Of similar interest is the study of the hypoglycemic and lipid-lowering effects of Aronia melanocarpa juice in experimental models with rats.

All the above shows the diverse scientific interests of Dr. Stoyanka Tancheva Ilieva both in the field of clinical laboratory and in various fields of internal medicine, jointly conducted with teams of researchers in various specialties.

#### **Educational and teaching activity**

Dr. Stoyanka Tancheva has a teaching experience of 34 years, as Assistant Prof., Chief

Assistant and currently Assistant Prof., certified by an electronic and hard copy document. Dr. Tancheva has 30 years of teaching experience in the specialty "Clinical Laboratory". Dr. Tancheva runs practical exercises in Clinical laboratory for students at Medical University, Varna with 183 hours per semester, a full lecture course and practical exercises for students majoring in "Clinical Laboratory Assistant", "Nurse" and "Midwife" at Faculty of Public health of Medical University, Varna as well in the same specialties at "Prof. Dr. Asen Zlatarov" University, Burgas. She provides curricula with lecture load on the discipline "Clinical Laboratory" for the specialty Medical assistants at "Prof. Dr. Asen Zlatarov" University, Burgas, Midwife at "Prof. Paraskev Stoyanov" University, Varna as well as for a list of students at freely elective module at the Medical College, Varna /according to the rules of "Prof. Dr. Asen Zlatarov University", Burgas/. She develops curricula and is a member of examination commissions in the discipline Clinical Laboratory in the respective universities.

#### **Other activities**

Dr. Stoyanka Tancheva Ilieva is a member of the Bulgarian Society of Clinical Laboratory, the Balkan Association of Clinical Laboratory, the Bulgarian Society of Nephrology, the Bulgarian Society of General Practitioners.

Fluent in Russian (written and spoken), English and French (work level).

Dr. Tancheva is a doctor, established lecturer and researcher, with a strong taste for research work in the field of clinical laboratory, who applies her knowledge in everyday laboratory practice. The results of her work have been accepted at home and abroad as evident through her publications in journals with IF and especially her citations in foreign journals - a total of 261 citations.

In conclusion: Dr. Stoyanka Tancheva Ilieva possesses the necessary qualities and her research, teaching and laboratory-diagnostic activities are above the minimum requirements for holding the academic position of "Associate Professor" at "Prof. Dr. Asen Zlatarov" University, Burgas. All the above gives me a reason to recommend to the esteemed members of the Scientific jury to award Dr. Stoyanka Tancheva Ilieva the academic position of "Associate Professor" in the scientific specialty "Clinical Laboratory" in the professional field 7.1 Medicine in Higher Education 7. Health and Sports.

March 1, 2022  
Sofia

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