

## STATEMENT

by Assoc. Prof. Dr. Rositsa Valerieva Karalilova, MD, PhD, DMSc

Medical University - Plovdiv, Faculty of Medicine

Department of Propaedeutics of Internal Diseases

on dissertation thesis for the acquisition of scientific degree "Doctor"

professional field 7.1 medicine; 7. Healthcare.

doctoral program 03.01.18 Rheumatology.

**Author:** Dr. Zguro Anastasov Batalov

**Form of doctoral studies:** doctoral student of independent preparation

**Department:** "Propaedeutics of Internal Diseases", Medical University - Plovdiv.

**Topic:** "Blocking the JAK / STAT signaling pathway as a novel therapeutic opportunity in patients with systemic sclerosis"

**Scientific adviser:** Assoc. Prof. Mariela Geneva-Popova, MD, PhD

### 1. General presentation of the procedure and the doctoral student

The presented set of materials on paper / electronic media is in accordance with Art. 70 ( 1 ) of Section I. Acquisition of educational and scientific degree "DOCTOR" at MU-Plovdiv; Regulations of MU-Plovdiv from 28.01.2021 and includes the following documents:

- Application to the Rector of MU-Plovdiv for disclosure of the procedure for defense of the dissertation
- CV in European format with the signature of the doctoral student
- notarized copy of higher education diploma
- orders for enrollment in doctoral studies, interruption of studies (due to maternity) and for continuation of studies; for deductions with the right to protection
- order for conducting an exam from the individual plan and a corresponding protocol for passing an exam or a doctoral minimum in the specialty
- Protocol of the Department Council for preliminary discussion of the dissertation work and the decisions taken for opening the procedure and for the composition of the scientific jury
- dissertation work
- abstract
- list of scientific publications on the topic of the dissertation
- copies of scientific publications
- list of participations in scientific forums
- list of noticed citations
- declaration of originality and authenticity of the attached documents
- other documents related to the course of the procedure

The doctoral student has submitted 3 publications, of which 1 with impact factor in an international journal and two in refereed Bulgarian publications, participation in Bulgarian and international forums and congresses, meeting the requirements of the regulations for the number of published scientific studies.

Dr. Zguro Anastasov Batalov was born in Plovdiv in 1994. He graduated with honors from Plovdiv Language High School in 2013 and Medical University - Plovdiv with full honors in 2019. From 2019 is an assistant professor in the Department of Propaedeutics of Internal Medicine at the Medical University Plovdiv and a doctoral student in independent training since 2021. Teaches student groups in English in rheumatology and propaedeutics of internal medicine. From 2019 is a resident in rheumatology at the University Hospital "Kaspela". He has qualifications in capillaroscopy and joint ultrasound. He has participated in a number of Bulgarian and international conferences.

## **2. Relevance of the topic**

Despite efforts in the field of attempts at therapeutic response to systemic sclerosis, it remains the disease with the least progress in this regard. The ongoing disability of patients and the high risk of death from lung, heart, kidney damage require the modern rheumatologist early recognition of the symptoms of the disease and adequate therapeutic strategies. The deepening of knowledge in the etiopathogenesis of the disease gives hope for the discovery of new molecules that will be able to control the disease process. That is why the efforts of scientists worldwide are focused on seeking such therapies. The above defines the topic of the dissertation as relevant and contemporary. Moreover, the PhD team is the first in the world to publish data on the effectiveness of JAK inhibitors in patients with systemic sclerosis.

## **3. Knowledge of the problem**

The doctoral student shows in-depth knowledge in the field of research.

## **4. Research methodology**

Patients diagnosed with systemic sclerosis were prospectively enrolled to the study. They are divided equally into two groups, depending on the applied therapeutic plan. The two groups of patients were compared with each other within a one-year follow-up period. The methods used in the development are modern, corresponding to the developed protocol and allow to achieve the set goal and objectives.

## **5. Characteristics and evaluation of the dissertation**

The dissertation is written on 185 standard typewritten pages and is illustrated with 16 tables, 26 figures and 19 appendices. The bibliographic list contains 226 literature sources, of which 14 are in Cyrillic and 212 in Latin. □

*Introduction* is specific and accurate. It presents modern views on the problem under consideration and points to the possibility of influencing the disease .

*Goals and objectives* are clearly stated.

*The literature review* is comprehensive and covers 41 pages. It shows a good knowledge of the problem under discussion, as well as the ability of the doctoral student to analyze the experience of foreign authors.

The *Materials and Methods section* is described in 15 pages. The inclusion and exclusion criteria are well selected and clearly defined. They correspond to the goals and objectives and are clearly defined for each stage of the study. 66 patients with systemic sclerosis are enrolled. The demographic characteristics of the patients and the classification criteria are described in detail and comprehensively - they are current, modern and generally accepted. The clinical, paraclinical incl. immunological and instrumental studies, including two-dimensional ultrasonography to assess skin and joints, elastography, ultrasound of the lungs, Power Doppler for synovitis and tenosynovitis, echocardiography, FVC and HRCT of the lung were performed adequately in the monitored groups of patients . The statistical processing is modern and competently performed with the SPSS program v. 27 and is illustrated with the relevant graphs and figures.

The *Results section* is presented on 54 pages. The results are presented logically and consistently and correspond to the set goals and objectives. After each analysis, a detailed discussion of the results was made. The results are illustrated and with a sufficient number of tables and figures.

*The discussion* is presented in 11 pages. It is critical and well summarizes and compares the results obtained by the doctoral student with those on a global scale and looks for the reasons for

these differences.

There are 6 *conclusions* and they originate from the set tasks.

*The contributions* are respectively - 3 original contributions, 2 confirmatory and 3 scientifically applied.

*Bibliographic reference* contains 226 titles, of which 14 in Bulgarian and 212 in English, most of which are from recent years.

The work includes 19 appendices that complement and enrich the dissertation.

#### **6. Review of the publications of the dissertation**

Publications are 3, one of which is an article in an international magazine with an impact factor. The other 2 are published in refereed Bulgarian editions. There are 3 participations in international and Bulgarian forums, two at Bulgarian congresses with international participation and one at an international forum. These publications are sufficient in number and meet the criteria set out in the Regulations of MU Plovdiv.

#### **7. Abstract**

The abstract meets the requirements. Reflects in a synthesized form the most important moments of the dissertation in all its sections.

#### **8. Critical remarks**

The critical remarks made about the structuring of the work and its design are taken into account and attached in the presented final version of the text.


### **CONCLUSION**

The dissertation thesis is elaborated in detail, with scientific and practical contribution and comply with the requirements of the Academic Staff Development Act of the Republic of Bulgaria, the Regulations for its implementation and the Regulations of MU - Plovdiv for the acquisition of scientific degree "Doctor" in the specialty of Rheumatology.

In view of the above, I hereby give my positive assessment of the presented scientific work and recommend to the esteemed members of the jury appointed by order № P-2356 / 13.06.2022. of the Rector of MU-Plovdiv to vote a positive assessment of a dissertation for the acquisition of scientific degree "Doctor" of Dr. Zguro Anastasov Batalov, assistant professor at the Clinic of Rheumatology at MU-Plovdiv on: "Blocking the JAK / STAT signaling pathway as a novel therapeutic opportunity for patients with systemic sclerosis" with supervisor Assoc. Prof. Dr. Mariela Geneva-Popova, MD, PhD, specialty Rheumatology in a professional field 7.1. Medicine, 7. Health.

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

16.JUN.2022

Statement prepared by: 

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