



## **Review**

**by Prof. Dr. Anastas Zgurov Batalov, MD, PhD**

**Medical University - Plovdiv ,**

**Department of Propaedeutics of Internal Diseases**

**Clinic of Rheumatology , University Hospital " Kaspela "**

of dissertation for awarding the educational and scientific degree '**doctor**'

professional direction *7.1 Medicine; 7. 1 Healthcare*

doctoral program *03.01.18 Rheumatology*

**Author** : Dr. Krassimir Iliev Kraev

**Form of doctoral studies:** self-study doctoral program

**Department:** Propaedeutics of Internal Diseases at the Medical University of Plovdiv

**Topic** : Study on the immunogenicity of TNF-  $\alpha$  blocker drugs for the formation of drug-induced neutralizing antibodies in patients with inflammatory rheumatic joint diseases

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

### **1. General presentation of the procedure and the PhD student**

The presented set of materials is in accordance with the requirements of the Procedure for Acquisition of ONS "Doctor" in MU - Plovdiv 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 the diploma for higher education
- an order for conducting an examination from the individual plan and a respective protocol for passing an exam or a doctoral minimum in the specialty
- protocol from the Department for preliminary discussion of the dissertation and decisions on disclosure of procedure.
- dissertation work
- abstract
- list of scientific publications on the topic of dissertation
- copies of scientific publications
- list of participations in scientific forums
- list of spotted citations
- declaration of originality and authenticity of the attached documents
- other documents related to the course of the procedure

The PhD student has attached 6 full-text articles , 3 reviews , 4 scientific presentations in Bulgaria, 2-abroad.

The documents meet the requirements for the implementation of a procedure for the defense of dissertation work .

Dr. Krassimir Kraev was born in Plovdiv in 1989. He graduated from English Language School "Plovdiv" in 2008 and MU-Plovdiv - in 2014.

Since 2014 he has been an assistant professor in the Department of Propaedeutics of Internal Diseases at the Medical University of Plovdiv . From 2015-2019 he is rheumatology resident in University Hospital "Kaspela" and in 2019 he acquired specialty in rheumatology.

He has qualifications in capillaroscopy, joint ultrasound, MRI in spondilopathies . He has participated in numerous Bulgarian and international conferences.

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

The scientific research of the PhD student pays attention to an actual problem for the Rheumatology. The inflammatory joint diseases- Rheumatoid arthritis , Psoriatic arthritis and ankylosing spondylitis are the most common rheumatic diseases .Their treatment has an enormous social and economic impact. Despite the use of the revolutionary new biologic drugs still part of the patients does not 'react' well to the treatment.

## **3. Understanding of the problem**

The PhD student shows deep knowledge in the area of the problem as shown by the presented detailed and well structured literature review. Each of the results is compared to the data available in the world literature.

## **4. Research methodology**

The selected method of study is correctly selected , the tasks set are precise and concrete.

## **5. Characteristics and assesment of the dissertation work and contributions**

The dissertation work takes 218 pages with correct structure.

For further detailing 36 figures and 41 tables are included. The bibliography has 369 sources cited .

The introduction is precise and clearly presents and reviews the topic of the current dissertation..

Objectives and tasks are precise, concrete and fully correspond to the scientific problem.

The literature review is comprehensive and reflects the current progress on this problem in national and worldwide aspect.

The presented scientific work is well structured, shows depth in the research of the problem . Its scientific value is due the analysis of the actual problem with the drug induced neutralizing antibodies. Especially valuable are the algorithms presented by the PhD student and his supervisor.

## **6. Critical remarks**

The cytokine IL-6 is tested without this being part of the aim of the dissertation. There are discrepancies in some of the units that are used.

Some technical errors are made but they are not of an importance.  
Some discrepancies between the title of figure and what is included in the text are seen

### **7. Evaluation of the publications and personal contribution of the doctoral student**

Dr. Kraev attached a total of 14 publications connected with his thesis , 3 reviews ( 1 in English), 6 articles ( 4 in English ), 4 scientific presentations in Bulgaria and 2 abroad

Dr. Kraev's publications meet the requirements for obtaining the scientific degree "Doctor " .

### **8 . Summary**

The submitted summary fully reflects the main results shown in the dissertation and is created according to the requirements.

### **CONCLUSION**

The presented dissertation work includes scientific, research and applied results that are original contributions to science and meet all requirements of the Law for the Development of the Academic Staff in Republic of Bulgaria (ZRASRB) Regulations for implementing ZRASRB and the corresponding regulations of MU - Plovdiv. The submitted materials and dissertation results fully comply with the requirements of Medical University-Plovdiv

The dissertation work demonstrates that the PhD student Dr. Krassimir Iliev Kraev has a profound theoretical knowledge and professional skills in the field of Rheumatology, and demonstrated qualities and skills to independently conduct research.

Given the above, I am convinced of my positive assessment of the research presented by the above dissertation, summary, results achieved and contributions and propose to the **Honorable Jury to award educational and scientific degree "Doctor" in Rheumatology** to Dr Krassimir Iliev Kraev.

Date:

06.08.2020

Reviewer.....



