



STATEMENT

By Prof. Maria Stoimenova, DSci

External member of scientific jury,

According to order N P -1684/ 30.09.2020 of the Rector of MU Plovdiv

on the dissertation :

**ANGIONEUROTIC EDEMA - EPIDEMIOLOGY, ETIOLOGY, PATHOGENESIS,
FORMS, CLINICAL COURSE, DIAGNOSTIC AND DIFFERENTIAL DIAGNOSTIC
CRITERIA, THERAPEUTIC APPROACHES**

Author: Assoc. Prof. Dr Svetlan Mihov Dermendzhiev, PhD

for awarding the scientific degree „ Doctor of science“

Higher education area: 7. Health and Sport

Professional Field 7.1 Medicine

Scientific specialty Immunopathology and allergy (03.01.27)

I declare the absence of common publications with the applicant and the absence of a conflict of interest within the meaning of the additional provisions of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB). The materials presented to me electronically are in accordance with the requirements of the LDASRB, its Implementing Regulations and the Regulations of the Medical University of Plovdiv.

1. General presentation of the author and the competition

The professional CV of ass. Prof. Svetlan Dermendzhiev reflects his purposeful development and qualification in several related fields of medicine. After graduating as a medical doctor at the Medical University of Plovdiv in 1988, S. Dermendzhiev acquired successively the specialties "Internal Medicine" (1994), "Clinical Toxicology" (1996), and Occupational Diseases (2008) and in 2010 graduated as a Master of Health Management. In 2012 he acquired the educational and scientific degree "Doctor" in Social Medicine and organization of health and pharmacy. In the period 2000 - 2013 he completed 16 courses for postgraduate qualification. His academic career is associated with the Clinic of Occupational Diseases and Toxicology at MU-Plovdiv, since 1991, where he is currently the head of the Occupational Diseases and Allergology Department, and Second Chair of Internal Medicine, Division of Occupational Diseases, where he has been successively assistant and associate professor (2014).

1. Characteristics of the dissertation and the scientific contributions

The dissertation work of S. Dermendzhiev is dedicated to a complex and relatively understudied, especially in Bulgaria, medical problem - angioneurotic edema in its two forms, hereditary and acquired. It concerns a nosological unit with multifactorial etiology, insufficiently well-understood pathogenesis, often a complex clinical picture and a lack of a unified diagnostic and therapeutic approach. The high risk of fatal outcome in hereditary angioedema, as well as the increasing incidence of some of its acquired forms, especially associated with medications, determine the great importance of the problem. In this sense, the comprehensive study of the epidemiology, etiology, pathogenesis, clinical course and therapy of angioedema, and the elaboration of adequate approaches for improving the diagnosis and treatment of these patients in the context of the Bulgarian health system is an up-to-date, scientifically justified and practically significant endeavor. The professional experience and expertise of Dr. S. Dermendzhiev, as well as his publications in connection with the dissertation, give the grounds to assume that the overall study is a personal work of the author.

a. Structure of the dissertation work.

The structure of the dissertation work fully meets the accepted requirements: written on 171 pp., of which: introduction (1 p.), literary overview (71 p.), purpose and tasks (1p.), material and methods with detailed characteristic of the surveyed contingent (8 p.), results and discussion with conclusions after the main parts (43 p.), summarized conclusions (6 p.); and illustrated by 38 diagrams, 35 tables and annexes (questionnaire and photos). The overview is well structured and extremely informative, in line with the complexity of the studied nosological unit. A total of 287 literary sources have been referenced, including 18 in cyrillic, about 25% from the last 10 years. The study is based on an impressive number of patients - 2,298; an extremely detailed questionnaire (56 open, semi-open and closed questions grouped into 5 sections) and well-chosen modern statistical methods have been employed. All this is a guarantee for the consistence of the obtained results, and the significance of the drawn conclusions. The author's abstract contents and layout fully meet the accepted requirements.

b. Critical remarks. Without questioning the scientific value of the study, some shortcomings related to the presentation and structure of the work should be noted. There is a certain imbalance among the separate parts, with the results and discussion being significantly shorter than the literary review. The numerous conclusions after each distinct part of the results (30 in total) are intended to facilitate perception, but they repeat the information rather than synthesizing it. The work would benefit from a more thorough discussion of the results in the light of the published international data. The "summarized" conclusions are too detailed for me. There are a number

of stylistic, grammatical and technical errors, both in the author's abstract and the thesis (e.g. incomplete references, too small fonts in some figures etc.)

c. Theoretical and applied contributions

I accept the contributions stated by the author, in their essence but not the way they have been formulated - too detailed and repetitive. According to me, the following contributions are undeniable:

- The survey on angioneurotic edema, in its volume and detailed approach, is unique at the national level.
- The comprehensive analysis of the socio-demographic characteristics of patients, the structure of etiological factors, the most common clinical manifestations and concomitant diseases permits the identification of characteristics essential to the diagnostic process, which in some cases differ from published data.
- Valuable data on the incidence of the disease among the Bulgarian population and the socio-demographic profile of the affected have been obtained (working women, over 50, living in the cities)
- The detailed analysis of etiological factors reveals a significantly lower incidence of trauma, stress and nuts as a provoking factor, in comparison to published data.
- A high incidence of sensitization to allergens in patients with acquired angioedema (33.3% of cases) has been established.
- An important theoretical contribution is the established high incidence of allergic reactions provoking hereditary angioedema (HAE) and the idea of a combination of IgE-mediated and non-IgE-mediated factors in the pathogenesis of the disease.
- Another theoretical contribution is the established high incidence of concomitant diseases in HAE.
- An important practical contribution is the identification of serum IgE and blood Eo count as accessible biomarkers for differentiating between the allergic and non-allergic forms of angioedema
- Most importantly, the obtained results can serve as a basis for the development of a National Consensus Document for the diagnosis and treatment of angioneurotic edema. The improvement of the current diagnostic and treatment algorithms will have a specific financial effect, by reducing the number and duration of hospitalisations and by improving the quality of life of the affected.

3. Assessment of mandatory scientific indicators related to the dissertation work.

In connection with the subject of the dissertation, Dr. Dermendzhiev has submitted a list of 28 full-text articles, 9 of which – in scientific journals, indexed in world-famous databases and 19 – in unreferenced editions with scientific editing. Four articles are published in journals with impact factor (total IF 11,441). Dr. Dermendzhiev is the author of three monographs (one in English) and

one practical manual on the subject. The number of publications and science indicators comply with the Rules of Procedure for acquiring scientific degrees and holding academic positions at the Medical University of Plovdiv

4. Conclusion

The work "ANGIONEUROTIC EDEMA – EPIDEMIOLOGY, ETIOLOGY, PATHOGENESIS, FORMS, CLINICAL COURSE, DIAGNOSTIC AND DIFFERENTIAL DIAGNOSTIC CRITERIA, THERAPEUTIC APPROACHES " presented to me for revision is an up-to-date and timely development that gives the key to a medical problem of increasing social importance. The dissertation work is based on years of professional experience and independent analysis; original theoretical results have been obtained and approaches have been formulated to address specific practical problems. The dissertation and related the related publication activity of the author meet and fully meet the criteria requirements of the Law on Development of Academic Staff in the Republic of Bulgaria, its Implementing Regulations and the Rules of Procedure for acquiring scientific degrees and holding academic positions at the Medical University of Plovdiv.

On the basis of the above, I give a positive assessment and propose that the honorable members of the scientific jury award the scientific degree "Doctor of Sciences" to Assoc. Prof. Svetlan Mihov Dermendzhiev, MD, PhD in higher education field 7, "Health and Sport", professional field 7.1 Medicine, scientific specialty "Immunopathology and Allergology", code 03.01.27.

27/10/2020

Signature



Prof. M. Stoimenova, MD, DSC