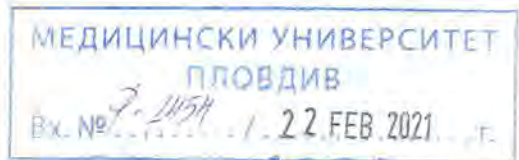


STATEMENT



by **Assoc. Prof. Dr. Tsvetana Ivanova Abadjieva, MD, PhD**

Department of Dermatology and Venereology, Medical University - Plovdiv

On dissertation for awarding the scientific degree "Doctor of Sciences"
in the field of higher education 7. Health and sports,
professional field: 7.2. Dentistry
scientific specialty: Dental Clinical Allergology

Author: Assoc. Prof. Iliana Lyubomirova Stoeva, MD

Department of Clinical Dental Allergology, Faculty of Dental Medicine,
Medical University - Plovdiv

Topic: OCCUPATIONAL SKIN AND RESPIRATORY SYMPTOMS AMONG DENTAL
PERSONNEL

1. General presentation of the procedure and the candidate

I was appointed as a member of the scientific jury by Order P-280/01.02.2021, issued by the Rector of Medical University of Plovdiv.

The set of materials presented to me on paper and electronic media is consistent with the Requirements of the Procedure for acquisition of the scientific degree "Doctor of Sciences" in MU – Plovdiv, and the Law for development of the academic staff in the Republic of Bulgaria, and comprises all the required documents: application to the Rector of MU-Plovdiv for initiation of the dissertation defense procedure, CV in European format signed by the doctoral candidate, notarized copy of the diploma of higher education, dissertation, abstract, list of scientific publications on the topic of the dissertation, copies of scientific publications, list of noted citations, other documents related to the course of the procedure.

Copies of 15 publications relevant to the topic of the dissertation were submitted.

Short biography of the doctoral candidate

Assoc. Prof. Iliana Lyubomirova Stoeva, MD was born on May 18, 1977. She was a full-time doctoral student at the Department of Imaging and Oral Diagnostics at FDM, MU - Sofia from 2005 to 2008. She acquired the educational and scientific degree "Doctor" with a dissertation on "Intraoral contact hypersensitivity to dentures" in 2009. Dr. Stoeva acquired a specialty in Prosthetic Dentistry medicine in 2010, and in Dental Clinical Allergology in 2015. She worked as a full-time assistant at the Department of Imaging and Oral Diagnostics at FDM, MU - Sofia from June 16, 2008 to May 19, 2010, then at the Department of Imaging, Dental Allergology and Physiotherapy at FDM, MU - Plovdiv as a full-time assistant, chief assistant, and since 2011 until now as an associate professor. Assoc. Prof. Stoeva had a private dental practice from 2002 to 2020.

2. Topicality of the subject

The dissertation is up-to-date and explores a contemporary problem with scientific and practical orientation. Among the occupational diseases of dental personnel, due to chemicals in the work environment, the most common are skin diseases. Occupational contact dermatitis comes first.

There is an increase in the frequency of contact dermatitis among dental professionals due to the constant contact with many various chemical materials in dental practice.

Respiratory hypersensitivity associated with the work environment is also characteristic and has increased in recent decades.

There are few studies examining the importance of occupational skin and respiratory symptoms.

3. Understanding of the topic

The doctoral candidate is familiar with the problem in detail. The literature review is concrete and thorough, and the references list is extensive, which shows awareness on the topic.

4. Research methodology

The research methodology is suitable to achieving the stated goal and to obtaining an adequate answer to the tasks in the dissertation. The methodology and design of the study are described in detail. The design of the study on tasks 1, 2 and 4 is presented in fig. 10 in a very clear and informative way. The statistical analyses used are appropriate. The data of tasks 1, 2 and 4 were processed with the statistical package SPSS, version 18. For task 5, to structure the database, Microsoft's Access 2010 was used.

5. Characteristics and assessment of the dissertation work and contributions

The dissertation is very well structured and clearly presented.

The dissertation consists of 270 standard typewritten pages, structured as follows: contents - 3 pages, list of abbreviations - 1 page, introduction - 2 pages, literature review - 55 pages, objectives and tasks - 2 pages, material and methods - 22 pages, results and discussion - 128 pages, summary - 4 pages, conclusion - 1 page, conclusions - 2 pages, contributions - 1 page, bibliography - 28 pages. The dissertation contains 45 figures, 65 tables, 3 appendices. The bibliography contains 546 sources, of which 8 in Cyrillic, the rest in Latin.

The objectives and tasks are clearly stated. There are 5 tasks arising from the set goal. Task 4 has 4 subtasks.

In the Results and Discussion section, under Task 1, the data on the study of the prevalence, characteristics and risk factors for the occurrence of skin reactions related to the work environment among dental personnel are given on the basis of a self-assessment survey. The results are presented separately for dentists, dental nurses, dental technicians, and dental students. Data on the evolution of occupational skin symptoms and the consequences for the professional activity are presented. The analysis shows that a significant part of the dental personnel reported occupational skin symptoms, with the highest share being registered in the group of dental nurses, followed by doctors and dental technicians.

Under Task 2, regarding respiratory symptoms related to the work environment among dental staff, the data were collected on the basis of a self-assessment survey. The results show that the prevalence of work-related respiratory symptoms among the studied contingent was up to 23.3% in Kardzhali. Dental technicians are most commonly affected, followed by dental nurses, dentists and dental students.

Under Task 3, identification of allergens in the dental environment, difficulties arise regarding composite materials, information on the composition of which is extremely scarce. Bonds, polymethyl methacrylate resins, dental alloys, sanitizers were analyzed. A detailed table of contact allergens in dental materials and sanitizers is presented.

Task 4 defines the role of sensitization to occupational allergens among dental personnel for the occurrence of skin symptoms through clinical examination, epicutaneous test and examination of the relationship of positive reactions to haptens from the dental environment with anamnestic and clinical indicators. Sensitization to metals was reported to be the most frequent. In women, the relative share of those affected is highest in the various groups of dental personnel. Sensitization to

acrylic monomers or other ingredients included in acrylic resins, such as initiators, activators and polymerization inhibitors has been found. Positive reactions to glutaraldehyde, Thiuram mix and Carba mix have been reported.

Under Task 5, a register for dental and medical personnel with work-related skin and respiratory symptoms has been created. A database structure has been created with the construction of an electronic register, which enables entry of all data related to occupational skin and respiratory reactions. Data visualization facilitates trends tracking in the sensitization of dental personnel over a certain period.

The results show a pronounced frequency of adverse reactions linked to the work environment, as well as progression of symptoms. The results are important for the effective prevention of skin and respiratory problems among dental personnel.

There are 9 concrete conclusions.

The contributions are 5, 3 with theoretical and 2 with applied character.

6. Assessment of the publications and personal contribution of the candidate.

The publications on the topic of the dissertation are 15: 8 publications are in scientific journals referenced and indexed in world-renowned databases, of which 3 are in journals with impact factor, 4 publications are in non-indexed journals with scientific review or published in edited collective volumes, 3 publications are chapters from collective monographs.

Assoc. Prof. Stoeva is the first author of 13 publications and the second author of 2 publications.

There are 4 citations in scientific journals in world-renowned databases with scientific information or in monographs and collective volumes, of which 1 citation in a journal with an impact factor.

The academic scoring indicators of Assoc. Prof. Stoeva for the degree Doctor of Sciences exceed the minimum national academic scoring indicators.

| Indicator group | Content | Doctor of science | Assoc. Prof. Stoeva |
|-----------------|----------------------------|-------------------|---------------------|
| A | Indicator 1 | 50 | 50 |
| B | Indicator 2 | 100 | 100 |
| D | Sum of indicators 5 to 9 | 100 | 230 |
| E | Sum of indicators 10 to 12 | 100 | 100 |
| Total | | 350 | 480 |

The dissertation is the result of Assoc. Prof. Stoeva's own work. The results and contributions are her personal merit.

7. Abstract

The dissertation abstract comprises 60 pages and is consistent with the content of the dissertation. It follows the requirement and contains the main results, conclusions, and contributions in the dissertation.

CONCLUSION

The dissertation is relevant and is a result of the own work of Assoc. Prof. Stoeva. The dissertation of Assoc. Prof. Stoeva contains **results of scientific and applied nature with an indisputable contribution to the medical science** and is fully compliant with the requirements of

the Law for development of academic staff in the Republic of Bulgaria (ZRASRB), Regulation for the implementation of ZRASRB, and the Rules of MU - Plovdiv. The materials presented and the results are fully compliant with the specific requirements of MU – Plovdiv.

In consideration of the above, I confidently give my **positive** assessment of this research, and propose to the honorable members of the scientific jury **to vote positively** for awarding the scientific degree of Doctor of Sciences to Assoc. Prof. Stoeva, MD, PhD in the field of higher education. 7. Health and sports, professional field 7.2. Dentistry, scientific specialty: Dental clinical allergology

February 22, 2021

Plovdiv

Statement prepared by:

Assoc. Prof. Dr. Tsvetana Abadjieva, MD