

## STATEMENT

by Professor Ivajlo Petrov Vjarov, Ph.D.  
Military Hospital - Varna, Military Medical Academy

**Subject:** Dissertation on "Medical aspects of water injuries at sea" by Assoc. Prof. Dr. Dimitar Georgiev Stavrev, Ph.D. PhD student for obtaining the scientific degree "Doctor of Science" in the professional field 7.1 Medicine

**Author:** Dimitar Georgiev Stavrev

**Theme:** „Medical aspects of water injuries at sea “

### 1. Protection procedure

By order № P-109-346 / 19.08.2021 of the Rector of MU "Prof. Dr. Paraskev Stoyanov "I have been elected a member of the Scientific Jury, and under Protocol №1 of the forthcoming meeting of the Scientific Tool for Jury I have been appointed to prepare a statement under a procedure for acquisition the educational and scientific degree" Doctor of Sciences "by Dimitar Georgiev Stavrev.

The set of materials presented to me is in accordance with the requirements of the Law on Academic Staff in the Republic of Bulgaria, the Regulations for it and the Regulations for the development of academic components at the Medical University of Varna.

### 2. Brief biographical data and professional development

Dr. Dimitar Georgiev Stavrev graduated from high school in 1979 at the VII ESPU. In 1987 he graduated from the Higher Medical Institute in Varna. In 1993 he defended his medical specialty in "Anatomy, Histology and Cytology" at the Higher Medical Institute - Sofia. In 2011 obtaining the educational and scientific degree "Doctor" in the scientific specialty "Anatomy, Histology and Cytology" from the Higher Attestation Commission (HAC). In 2015 he was elected associate professor of Anatomy, Histology and Cytology at the University of Ruse "Angel Kanchev", and in 2016 he was elected associate professor in "Emergency Medicine (Marine Medicine)" at the Medical University "Prof. Dr. P. Stoyanov" - Varna. He has acquired many qualifications to relate to the topic of the dissertation - "Modern methods of resuscitation in case of water accidents", "Marine instructor and teacher", "Assessment, Testing and Certification of seafarers", "Special psychological assistance in critical / stress situations ",

From 1987 to 1990 he worked as a district pediatrician at the General Hospital in General Toshevo. Since February 1990, after a competition for access, Medical University - Varna, work courses until now, and subsequently holds the positions of **Assistant, Senior Assistant, Chief Assistant and Associate Professor**. He is also a lecturer at the University "A. Kanchev" and the Bulgarian Red Cross. Participates in many part projects to address the topic

of the dissertation - "Health Sector Restructuring Project, Component 3: Special medical care", "Sustainable development infrastructure in the field of marine research", "Find a savior in yourself", "Raise awareness of older people to respond to disasters, accidents, catastrophes and to show first aid."

### **3. Topicality of the topic**

Water injuries at sea are a problem of growing relevance. As the planet's climate changes, natural catalysis is increasingly causing accidents and catastrophes in the world's oceans. On the other hand, more and more professional and developing activities are being transferred to the seas and oceans and increasing the risk of accidents. In the Republic of Bulgaria, 330 km from the Black Sea coast, there are two large cities and dozens of smaller settlements. Maritime transport, maritime industry, sea sports and tourism are developing intensively. Research and development on water safety and maritime disaster relief increase the safety of marine professionals and resting at sea. All this determines the relevance of the topic of the dissertation.

### **4. Knowledge of the problem**

The literature review presented by Assoc. Prof. Dimitar Stavrev is systematized in 5 sections with 12 subsections. The main characteristics of the impact of the environment inside the human body are described accurately and precisely. Clinical conditions in extreme situations in the marine environment, medical provision of protection in extreme situations at sea, as well as a system for medical training of participants in sea rescue are presented.

The review is written competently and clearly. The style available is accurate and shows good language and medical culture. The analysis at the end of the review reflects the current issues on the problem and logically justifies the need and motivation for the development of the dissertation. This shows the excellent theoretical training and awareness of Assoc. Prof. Stavrev, as well as an impressive ability to analyze well-known so far literature data on the problem.

### **5. Research methodology**

The chosen test methodology allows accurate and clear formulation for a placed goal. Different aspects, both in marine water trauma - the causes, mechanisms, medical damage, as well as overcoming the medical damage from it at different stages are examined systematically. Set 5 tasks that logically follow the goal and allow good implementation of the planned study. Methods selected and applied by the doctoral student for research and analysis, proof his desire to comprehensively cover the subject of research. Prepared and conducted research has proven the ability of Assoc. Prof. Stavrev precisely and in the necessary volume to extract maximum information and shows the level of knowledge in the study area.

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

The dissertation is structured according to the procedural requirements. It is written on 254 standard pages. The connection between the different parts of the dissertation is logical and meaningful. The literary reference is extensive and modern. It includes 363 literary sources, of which 162 in Cyrillic and 201 in Latin. The survey included 942 individuals, and the study of the psychological and physiological parameters of stress resilience in a water accident 240 volunteers from among marine professionals and working as such.

The results are presented in great detail in 25 subsections of 127 pages. They are presented in the order following the set tasks. The evidence is well illustrated with 17 figures, 28 graphs and 15 tables. The discussion is detailed, competent and reasoned, based on one's own results, in comparison with the literature data. The citations are correctly marked. The dissertation ends with a conclusion, which clearly shows what has been achieved in the study, outlining the unclear problems and future guidelines for research on the problem.

Conclusions. Based on the obtained results, 9 conclusions are formulated, which follow the logically set goal and tasks of the research.

## **7. Contributions and significance of development for science and practice**

I fully accept the proposed 8 contributions of the dissertation, which are grouped in two directions: 3 with scientific-theoretical character and 5 with scientific-practical character.

## **8. Evaluation of the publications on the dissertation**

In connection with the acquisition of educational and scientific degree "Doctor of Science", Assoc. Dr. Dimitar Stavrev MD has 37 real publications that have been published in Bulgaria and abroad - 3 of them are textbooks, 2 monographs, articles - 8 in collections of reports and 24 in scientific journals (2 of them foreign). All publications meet the requirements of Art. 54 (3) of the regulations for development of the academic staff in MU Varna (ten are required). The attached list fully meets the requirements for obtaining the educational and scientific degree "Doctor of Science".

## **9. Personal participation of the dissertation**

The presented dissertation is an original product. The research, the obtained results and the formulated contributions are a personal merit of Assoc. Prof. Dr. Dimitar Stavrev.

## **10. Abstract**

The abstract consists of 96 pages and is prepared according to the procedural requirements. In abbreviated form, it competently and correctly reflects the main positions and scientific contributions in the dissertation.

In conclusion, Assoc. Prof. Dr. Dimitar Stavrev is a respected and established specialist with high professional qualifications.

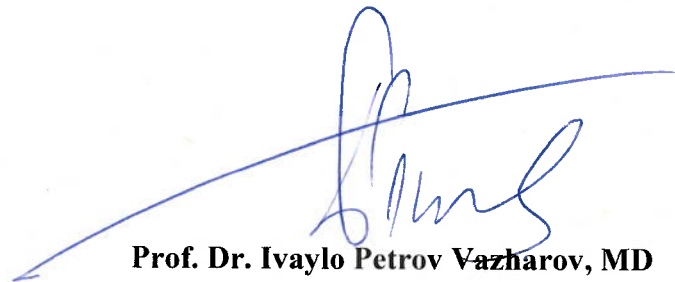
The dissertation presented for an opinion on the topic: "Medical aspects of water injuries at sea" is a relevant, significant and excellently completed scientific work, with a clearly set and achieved goal, with well-formulated and completed tasks. The conclusions made are accurate and correspond to the set goal. The contributions are theoretical, scientifically applied and original. Such a study is being conducted for the first time in Bulgaria.

The dissertation shows the in-depth theoretical and practical knowledge of Assoc. Prof. Dimitar Stavrev in the scientific specialty "Disaster Medicine" and demonstrates its qualities and professional skills for conducting a large and complex study.

I believe that the dissertation of Assoc. Prof. Dr. Dimitar Stavrev fully meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the criteria of the Medical Universities "Prof. Dr. Paraskev Stoyanov" - Varna. All this gives me reason to give my positive assessment and recommend to the members of the respected Scientific Jury to vote positively for the award of the educational and scientific degree "Doctor of Science" to Assoc. Prof. Dimitar Stavrev in the scientific specialty "Disaster Medicine".

21. 10. 2021

Varna



**Prof. Dr. Ivaylo Petrov Vazharov, MD**

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