

STATEMENT

By Assoc. Prof. Rositsa Hristova Chamova, MD, PhD

Department of Hygiene and Epidemiology

Faculty of Public Health, Medical University – Varna

Regarding: Dissertation for the acquisition of a scientific and educational degree "Doctor" in the field of higher education 7. "Health and sport", professional direction 7.1. "Medicine", scientific specialty "Hygiene (including labor, communal, school, radiation, etc.)".

Author: Dr. Yavor Hristov Chenkov, full-time doctoral student at the Department of Hygiene and Epidemiology, Faculty of Public Health at the University of Varna.

Dissertation topic: "Pollution of the Varna region of the Black Sea with plastic waste and possible risks to human health"

Scientific supervisor: Prof. Dr. Teodora Dimitrova, PhD

By order No. R-109-651/ 28.12.2023 of the Rector of the Medical University - Varna, I was elected as a member of the Scientific Jury, and on the basis of Protocol No. 1/ 05.01.2024, I was appointed to prepare an opinion on the acquisition of educational and scientific degree "Doctor" with candidate Dr. Yavor Hristov Chenkov, full-time doctoral student at the "Hygiene and Epidemiology" Department, Faculty of "Public Health" at the Medical University - Varna.

Procedure data

Assistant Dr. Yavor Hristov Chenkov is enrolled as a full-time doctoral student in the doctoral program "Hygiene (incl. labor, communal, school, radiation, etc.)" in the field of higher education 7. "Health and Sports", professional direction 7.1. "Medicine", with the topic of the dissertation work "Pollution of the Varna region of the Black Sea with plastic waste and possible risks to human health" and supervisor - Prof. Dr. Teodora Dimitrova, PhD, according to Order No. R- 109-21/01.02.2019 of

Deputy. the rector of the MU "Prof. Dr. Paraskev Stoyanov" - Varna Prof. Dr. Albena Kerekovska, MD He has successfully passed the doctoral minimum exam.

Assistant Dr. Yavor Hristov Chenkov was dismissed with the right of defense by Order No. R-109-236/ 11.04.2023 of the Rector of the Medical University - Varna.

All administrative documents are presented according to the Regulations for the development of the academic staff of the University of Varna.

Brief biographical data

Dr. Chenkov was born in Dupnitsa. In 2016, he graduated in Medicine from the Medical University – Varna.

Dr. Chenkov's work experience began in 2016 at UMHAT "St. Marina" EAD, Varna, where he worked until 2017 as a psychiatric paramedic. From 2016 to the present, he is an assistant in the Department of Hygiene and Epidemiology of the Medical University - Varna, and from 2017 to the present, he is a psychiatric resident at the UMHAT "St. Marina" EAD, Varna.

General characteristics of the dissertation work

The dissertation, developed by Dr. Yavor Chenkov, consists of 168 pages and is illustrated with 21 figures, 2 tables and 1 diagram. The appendices contain an archive of photographic evidence, as well as an author's questionnaire from the attached survey. The bibliographic list includes 337 literary sources, of which 2 are in Cyrillic and 335 are in Latin.

The dissertation work is well balanced and includes: Introduction (6 pages), Literature review (49 pages), Objective, Tasks, Research methodology and organization (8 pages), Results and discussion (63 pages), Conclusions and final remarks (6 pages), References and additional data in appendix (11 pages).

Actuality of the topic

The topic for anthropogenic pollution of the Black Sea, as part of the pollution of the planet, is relevant due to the increasing scale and severity in recent years. The problem of plastic pollution of water bodies is one of the most significant

environmental challenges of our time, raising concerns not only for the well-being of ecosystems in nature, but also carrying potential risks to human health. There is still a limited number of studies on plastic pollution in the Black Sea water area, which gives uniqueness to the developed dissertation work.

The literature review is targeted, thorough and well structured. Demonstrated ability to critically evaluate, summarize, systematize, and interpret scientific literature.

The purpose of the dissertation is clearly and precisely defined. The 5 tasks set are well formulated and meet the set goal.

The methodology is complex, described in detail and corresponds to the tasks set. Appropriate research methods have been selected:

documentary - an in-depth analysis of various sources of information - publications, reports, books and announcements related to the topic of the current dissertation;

sociological - a survey of the opinion of the citizens of the city of Varna regarding some aspects of plastic pollution was conducted.

field work - territories were selected and visited, from which samples were taken for analysis.

microscopic analysis – the samples was investigated for some signs for degradation

statistical and graphical methods – full descriptive statistics

The results and their discussion are the essence of the sixth chapter.

Dr. Chenkov presents in detail the results of the survey among the citizens of Varna and those from the field work and from the microscopic analysis of the collected plastic debris.

The results are illustrated by rich photographic material of the collected waste and

graphical images of the statistically processed data.

The presentation of the results of the conducted studies follows the set tasks. Based on the obtained results, recommendations are formulated and a model of a conceptual framework is proposed for a phased and segmental study of the various aspects of the problem of plastic pollution in the environment and the potential risks for ecosystems and humans.

The conclusions drawn are correctly formulated. They meet the set goals and objectives and logically follow the results and statistical analysis.

I support contributions that are divided into:

Contributions with original character:

1. The fundamental steps have been taken to implement ecological monitoring, regarding the detailed morphology of plastic pollution in the coastal areas of the Varna region.
2. The first detailed categorization of the quantities, sizes and types of plastic waste in some coastal areas of the city of Varna was carried out.
3. An initial assessment was made of some of the most common types of microparticles of potential plastic nature added to commercially available personal care products.
4. For the first time, a microscopic analysis of waste from plastic pollution in the Varna region was carried out, with the aim of tentatively determining the degree of fragmentation and degradation of plastic waste left in the environment.
5. A visual conceptual framework has been created for a step-by-step and segmental study of plastic pollution and its various aspects in the Varna region.

Contributions of a confirmatory and applied character:

1. A narrative review of the scientific literature addressing plastic pollution in water bodies and coastal zones and the resulting potential risks to ecosystems and human health was undertaken.
2. The data from the present study could contribute to conducting future

trainings, practical and informational campaigns, through which the problem of plastic pollution in the Varna region can be brought into the public discourse, including by engaging citizen science networks.

3. Recommendations are given for a step-by-step and segmental study of the problem of plastic pollution in the Varna Region, by optimizing and implementing the various aspects of environmental monitoring.

4. The data from the present study are a starting point for supplementing and expanding the teaching material on hygiene and ecology, as well as other areas of knowledge.

The dissertation is written in good language, precise in terms of terminology. Repetitions of certain fragments of the text are found. Technically, the dissertation is designed according to the requirements, and the bibliography is comprehensive.

The abstract faithfully reproduces the content of the dissertation. It is prepared in a volume of 83 standard pages and accurately presents the structure and content, contributions, participations and publications of the dissertation work.

In connection with the dissertation, the doctoral student presented 2 publications in the journals "Supplement to the Journal of Biomedical and Clinical Research" and "Social Medicine" and 1 publication - in the collection of reports "Proceeding of the ninth student scientific conference "Ecology and environment" and one publication in Journal of Social Medicine.

Three participations in scientific forums are indicated:

Jubilee scientific conference with international participation "New approaches in public health and health policy", MU-Pleven, 26.11-28.11.20;

9th Student Scientific Conference "Ecology and Environment", April 23-24, 2021;

9th Sea and Health Festival, May 18-20, 2023, MU-Varna.

In conclusion, the dissertation meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria. The work is presented in a complete and well-formed form.

In the dissertation work of Assistant Yavor Chenkov, his own experience from the study of a significant problem of modern society is presented. The comprehensive and consistent analysis performed provides opportunities to develop innovative approaches to improve and promote public health. I find the topic developed by the PhD student extremely relevant and timely. The content of the dissertation is legitimately and thoroughly developed, well illustrated and presented in good professional language.

All this gives me reason to positively evaluate the dissertation work "Pollution of the Varna region of the Black Sea with plastic waste and possible risks to human health" and to give my positive vote for the awarding of the scientific and educational award to Assistant Professor Yavor Hristov Chenkov " Ph Doctor" degree in the field of higher education 7. "Health care and sports", professional direction 7.1. "Medicine", in the scientific specialty "Hygiene (including labor, communal, school, radiation, etc.)".

31.01.2024

Varna

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

/ **Assoc. Prof. Rositsa Hristova Chamova** /