

**To the Chairman of the Scientific Jury,  
Determined by Order No. R-109-2 /06.01.2023.  
To the Rector of Medical University - Varna,  
PROF. Dr. VALENTIN IGNATOV, MD**

## **OPINION**

from

Col. Associate Professor Dr. Atanas Dimitrov Kalaydzhiev, MD  
Head of the Department of Eye Diseases, Ear, Nose and Throat Diseases and Oral Surgery,  
MMA - Sofia  
Head of the Clinic for Eye Diseases, Medical Academy – Sofia

**Regarding:** Dissertation work on the topic "**Visual rehabilitation for the visually impaired with socially significant eye diseases**" developed by Dr. Ivelina Yordanova Pitakova - a doctoral student in an independent form of study in the doctoral program "Ophthalmology", MF, MU - Varna, to acquire an educational and scientific degree "Doctor", in the scientific specialty "Ophthalmology", code 03.01.36, in the professional direction 7.1. "Medicine" from the area of higher education, 7. "Healthcare and sports", in the primary unit: Department of "Eye Diseases and Visual Sciences", MF, MU - Varna, with training base "SBOBAL" - Varna - Varna, with scientific supervisor Prof. Dr. Zornitsa Zlatareva, MD. The presented set of materials on paper and electronic media is in accordance with Art. 75 (1) of the Procedure for acquisition of the ONS "doctor" from the Regulations of the University of Varna from 29.10.2018, accepted by the Academic Council of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna on 29.10.2018, in force from 05.11.2018, amended and supplemented on 20.12.2019, in force from 20.12.2019 (protocol No. 54/20.12.2019 d.) and includes the following documents:

- application to the Rector of MU-Sofia for disclosure of the procedure for the defense of a dissertation work
- a curriculum vitae in European format with the doctoral student's signature
- a notarized copy of a higher education diploma
- orders for enrollment in doctoral studies
- an order for conducting an exam from the individual plan and a corresponding protocol for a passed exam or doctoral minimum in the specialty
- protocol from the departmental council for the preliminary discussion of the pre-dissertation work and the decisions taken for the disclosure of the procedure and for the composition of the scientific jury
- dissertation work

- abstract
- a list of scientific publications on the topic of the dissertation
- copies of the scientific publications
- list of participations in scientific forums
- list of noticed citations
- declaration of originality and authenticity of the attached documents
- other documents related to the course of the procedure

The doctoral student has attached 9 publications, 25 participations in courses and trainings in the country and abroad, and 7 participations in projects related to the doctoral studies.

### **Biographical data**

Dr. Ivelina Yordanova Pitakova was born on 09.12.1976. in the city of Silistra. She graduated from secondary education at the "Sveti Sveti Kliment Ohridski" Secondary School, Silistra, in 1995, majoring in biology and English with an honors diploma. In 2001 she completed her higher education at the Medical University - Varna - medicine, again with an honors diploma. In 2003 she began her specialization in ophthalmology - "SBOBAL" - Varna and since 2007 has an acquired specialty in Ophthalmology. She specialized in "Health Management" in Public Health, MU - Varna from 2014 until 2018.

In the period of 2001 - 2003 Dr. Pitakova worked as a medical representative in the city of Varna and North-Eastern Bulgaria. In the period between 2003 and 2007 she was an ophthalmologist - specialist at SBOBAL - Varna and a volunteer at the Children's Eye Center of the LI-ONS Club, Varna. Since 02.2004 and currently she is working as an ophthalmologist at "Optika Nova" in the city of Varna, and since 01.2007 and currently she is working as a specialist - ophthalmologist at the OMC "St. Nikolay Chudtoverets", city of Varna. And since 02.2020 and currently she is also working as a specialist - ophthalmologist at the "Black Sea" medical center - medical center for marine medicine, Varna.

She is a member of the Union of Doctors in Bulgaria, Union of Scientists in Bulgaria and Union of Bulgarian Ophthalmologists, Bulgarian Society of Pediatric Ophthalmology, Neuro-Ophthalmology and Ophthalmogenetics, Lions International – club Varna and ESCRS /2017-2020/. She participated in many congresses and scientific events at home and abroad, at some of them with posters and presentations. She specialized in the specialty in Bulgaria and abroad /SOE GRANT in ophthalmology, Ljubljana - Slovenia - 2008, SOE GRAND in ophthalmology, Munich - Germany - 2009/. She participated in 25 courses in the specialty. In June 2018 she successfully defended her diploma thesis at the Health and Welfare Institute on the topic: "Integrated approach for the visually impaired with an emphasis on low vision specialists"

Dr. Pitakova supervised three specialists in ophthalmology in the period 11.2018 - 2023.

She was a full-time doctoral student in the period 04.2019-04.2022. on the topic: "Visual rehabilitation for the visually impaired with socially significant eye diseases" - Order P-109-154 /11.04.2019.

She is the author of the collection for specialists "Test questions in ophthalmology" 2019.

Dr. Pitakova participated in a number of projects over the years:

- 2009 Visual rehabilitation in "Mali Dom" - Zagreb, Croatia in collaboration with the school for the visually impaired "Prof. Dr. Ivan Shishmanov" - Varna
- 2010 Active Red Cross activity - title "Excellent of the BCH"
- 2017 Repeatedly lecturer at a course for pregnant women on the topic "Children's vision" of "9-Mesetsa" magazine.

She speaks the following foreign languages: English, Russian, Italian and Greek.

She is married with two children.

The dissertation work contains 152 pages, including 42 tables and 51 figures. 166 literary sources are cited, of which 35 are in Cyrillic, 131 are in Latin, and 35% of them are after 2000. The dissertation student's good knowledge of the problem, the creative approach to the used literary material, as well as the precise and concise style of the author is impressive.

**The dissertation is structured in 13 sections:** Introduction – 2 pages; Literature review - 45 pages; Purpose and tasks - 2 pages; Material and methods – 11 pages; Results – 36 pages; Discussion – 20 pages; Conclusion and summary – 3 pages; Conclusions – 3 pages; Statement of contributions – 1 page; Publications and participation in scientific forums – 1 page; Useful links - 1 page; Appendices – 10 pages; Bibliography – 15 pages and Summary – 1 page. The scientific development is presented with an extensive literature review of 45 pages on the problem under consideration, where after a brief historical review the terminology, classification and epidemiology of blindness, socially significant eye diseases (age-related macular degeneration, diabetic retinopathy and glaucoma), impaired vision are examined as well as blindness in children, visual rehabilitation and visual assistance, visual acuity and vision tables, types of special optical aids for the visually impaired, innovative technologies for improving low vision and all legal regulations. Clinical signs and symptoms, the natural course, working classifications for the severity of visual rehabilitation and visual assistance are described in detail and in depth. The subject of the study are visually impaired patients meeting the criteria for low vision, including patients with socially significant eye diseases and visual acuity equal to or less than 0.3. The study participants were divided into four groups: 1st group with AMD, 2nd group with Glaucoma, 3rd group with Diabetic Retinopathy and 4th heterogeneous group, called "others" for convenience. The implementation of visual rehabilitation in visually impaired patients with socially significant eye diseases - MDSV, DR and glaucoma is explained and clinical research methods are referred to - by introducing a strict work algorithm and by using a special form for eye examination. A description of the eye status is presented: examination of uncorrected visual acuity for near and far, determination of vision with optimal optical correction (glasses) of each eye separately, after autorefractometry, and improvement of vision with a magnifying aid.

The in-depth study of visual disorders and the use of a wide variety of aids are of utmost importance to establish and understand the mechanisms leading to reduced vision, its correction, with the most appropriate means to achieve a long-term positive effect.

This is the first study of its kind in Bulgaria, which discusses the rehabilitation of the visually impaired and the types of resources available to support people with severely reduced vision.

In connection with the work, the dissertation student has 9 publications - 8 in Bulgarian publications and 1 in an international ophthalmology publication.

The purpose of the dissertation is clearly formulated - to study and analyze the current options for visual rehabilitation of the visually impaired and to develop an algorithm of management and a model for integrated care of these patients.

The 6 tasks set are clear, precise and correctly formulated.

The research methodology is detailed and comprehensively described, including basic clinical and additional instrumental, apparatus and imaging methods.

The results are presented in a clear and understandable scientific style and are illustrated and correctly labeled with 42 tables and 51 figures. Demographic characteristics were examined and compared with anamnestic data and clinical characteristics - distance vision, near vision, reading speed, and type of magnifier/type of magnification. Functional vision was examined and assessed at the first examination. Visual rehabilitation was studied and the results after 3 months were analyzed. All results are summarized by diagnosis groups.

Discussion and debate follow each task, and the results obtained are compared with those of other authors. Their coherent nature is evident, as well as the clear formulation of the conclusions and the definition of the contributions of the scientific work.

The contributions of the dissertation work are cognitive, scientific-applied and confirmatory in nature. A thorough and analytical literature review on the problem under study is presented.

Based on the above, I assess the dissertation work of Dr. Ivelina Yordanova Pitakova as her personal work, fully meeting the requirements and the recommended scientometric criteria for the award of the educational and scientific degree "DOCTOR".

The abstract presents in a concise and clear form the most essential part of the dissertation work.

Dr. Ivelina Yordanova Pitakova is a wonderful specialist with extensive knowledge of the specialty, caring towards patients. She is a very good clinician and precise researcher, with the ability to work in a team, able to critically and thoroughly analyze and interpret the data from her work.

### **Conclusion**

On the basis of the above, I consider my evaluation of the dissertation work presented by Dr. Ivelina Yordanova Pitakova on the topic "Visual rehabilitation for the visually impaired with socially significant eye diseases " to be entirely positive and I hereby express my deep conviction that the dissertation meets the requirements for the award of the educational and scientific degree "Doctor" in the Law for the Development of Academic Staff in the Republic of Bulgaria.

I confidently recommend the members of the honorable Scientific Jury to vote positively and to award to Dr. Ivelina Yordanova Pitakova the educational and scientific degree of "DOCTOR".

Date: 02.03.2023  
City. Sofia

Prepared the opinion.....  
/ Col. Assoc. Dr. A. Kalaydzhiev, MD/