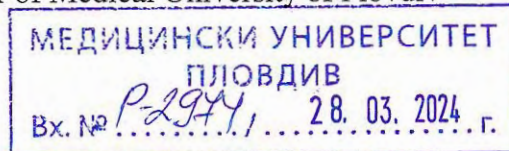


To: The Chairman of the Scientific Committee
authorized in Decree № P-476/05.2.2024 by the
Rector of Medical University of Plovdiv



OPINION

by **Assoc. Prof. Dr. Georgi Paskalev Safev, MD, PhD**
Emiritus Rector of Medical University of Plovdiv
Internal referee of the Scientific Committee designated by Order
No. P-476/05.2.2024 of the Rector of MU-Plovdiv

Regarding: PhD thesis for the Award of an Educational and Scientific Degree "Doctor"

Professional field: Dental medicine

Doctoral program: Dental imaging

Author: Dr. Tamara Petrova Petkova

Form of doctoral study: Full-time PhD student

Department of Imaging Diagnostics, Dental Allergology and Physiotherapy at the Faculty of Medical Sciences of the Medical University of Plovdiv

Topic: "INVESTIGATING THE DIAGNOSTIC CAPABILITIES OF MODERN IMAGING METHODS IN PATIENTS WITH CONGENITAL CLEFT LIPS AND PALATES"

Scientific supervisors: Assoc. Dr. Nikolay Sirakov, MD, PhD and Prof. Dr. Iliyan Doikov, MD, PhD

The following opinion is crafted in accordance with Order No. P-476/05.2.2024 issued by the Rector of MU-Plovdiv, pertaining to the procedures for defending the aforementioned PhD thesis in the scientific specialty of Dental Imaging Diagnostics. This opinion is also aligned with the provisions set forth in the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), its implementing regulations, and the Regulations of MU-Plovdiv.

1. General presentation of the procedure and the PhD student

The collection of printed and digital documents presented adheres to the regulations governing the terms and conditions for obtaining scientific degrees and academic positions at MU-Plovdiv. Upon reviewing the submitted PhD thesis, I have found no instances of plagiarism or evidence thereof. Based on the documentation provided, Dr. Petkova demonstrates the requisite scientific competence to attain the academic and scientific degree of "Doctor."

2. Relevance of the Topic

Congenital clefts of the lip and palate rank among the most common craniofacial malformations, constituting approximately 15% of all congenital anomalies. They present unique epidemiological, embryological, and etiological characteristics. The etiology of CLP is complex and multifactorial, involving various genetic and environmental factors. Accurate diagnosis and effective treatment necessitate the selection of appropriate imaging modalities. Segmental intraoral, occlusal, and panoramic radiographs are frequently employed for diagnosis; however, their interpretational capacity is limited due to projection distortion, two-dimensional representation, and the superimposition of numerous structures in the maxillary region. Cone-beam computed tomography (CBCT) emerges as an advanced imaging technique, particularly effective for visualizing craniofacial bones. CBCT offers several advantages over traditional 2D radiography, including the provision of three-dimensional volumetric, surface, and sectional information regarding craniofacial structures. Widely utilized for oral and maxillofacial diagnosis and treatment planning, CBCT boasts undeniable benefits such as lower effective doses of ionizing radiation, reduced exposure times, cost-effectiveness, and ease of accessibility. The topic addressed in the dissertation aligns with contemporary trends in diagnosing the aforementioned anomaly.

3. Understanding the Problem

The PhD student has conducted extensive research on the topic, as evidenced by the meticulously structured, detailed, and comprehensive literature review. The bibliography encompasses 168 sources, comprising 160 in Latin and 8 in Cyrillic script.

4. Characteristics and Assessment of the Dissertation and Contributions

The dissertation spans 170 pages and follows an accepted structure. It is enriched with 91 figures, 63 tables, and 38 appendices. This presentation aligns with the requirements for structural organization and substantive content. The introduction is lucidly formulated, reflecting the focal points of the addressed issue and the imperative for its advancement.

The literature review meticulously delves into both the essentials of CBCT and the nuances of congenital clefts of the lips and palate. Concluding with a critical analysis, it furnishes a solid foundation for the proposed and executed research.

In Chapter Two, the objectives and tasks of the research are meticulously outlined. The aim of the dissertation is precisely articulated: to assess the viability of CBCT in congenital clefts of the lips and palate as an optimal imaging modality for preoperative monitoring and postoperative follow-up. Six tasks are assigned, meticulously developed, substantiated, and executed throughout the research process.

The analysis of results is comprehensive, showcasing the PhD student's adeptness in data evaluation and analysis. Results are aptly illustrated with tables and figures. Conclusions are

succinctly formulated, reflecting the result analysis. The stated contributions of the dissertation are objective and derived from the attained results.

The theme of the PhD thesis, titled "INVESTIGATING THE DIAGNOSTIC CAPABILITIES OF MODERN IMAGING METHODS IN PATIENTS WITH CONGENITAL CLEFT LIPS AND PALATES," is timely and aligns perfectly with scientific interests and research needs in the realm of dental imaging.

5. Abstract

The abstract is appropriately structured, encompassing 50 pages, 24 figures, and 32 tables, effectively presenting all essential elements of the dissertation and the acquired results. In conjunction with the dissertation, Dr. Tamara Petrova Petkova presents a list of three scientific publications, one of which has been accepted for publication in an internationally indexed journal database. The candidate is listed as the first author on all publications. Additionally, Dr. Tamara Petrova Petkova provides evidence of three participations in scientific forums, one of which took place abroad.

6. Conclusion

The PhD thesis authored by Dr. Tamara Petrova Petkova is exceptionally contemporary, meticulously structured with exemplary methodology, and yields reliable results. It encompasses scientific and scientifically applied outcomes that constitute an original contribution to dental imaging diagnostics, fully aligning with the requirements stipulated in the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), its implementing regulations, and the guidelines of MU-Plovdiv. The materials presented, along with the dissertation results, adhere completely to the specific standards outlined in connection with the Regulations of MU-Plovdiv.

Based on the aforementioned assessment, I offer my affirmative evaluation of the PhD thesis submitted to me for review, and I recommend to the esteemed Scientific Committee to confer upon Dr. Tamara Petrova Petkova the educational and scientific degree of "Doctor" in the doctoral program of Dental Imaging Diagnostics.

27.03.2024
Plovdiv

Assoc. Prof. Dr. Georgi Paskalev Safev, MD, PhD

Заличено на основание
Чл.5 §1, б. "В" Регламент (ЕС)2016/679