

EXTERNAL REVIEWER'S REPORT

by Assoc. Prof. Konstantin Petrov Georgiev, MD, PhD
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**of the dissertation submitted for the award of the educational and scientific degree
“Doctor” (PhD)**

Professional field: Medicine (7.1)

Doctoral programme: Plastic-Reconstructive and Aesthetic Surgery, 03.01.43

Author: Dr Stancho Stoyanov Prodanov

Form of doctoral training: Independent study

Department: Propaedeutics of Surgical Diseases, Section of Burns and Plastic Surgery,
Medical University – Plovdiv

Title: *Electrical Injuries - Contemporary Aspects of Pathogenetic Mechanisms and Surgical Management*

Thesis Supervisor: Assoc. Prof. Elean Zanzov, MD, PhD

1. General overview of the procedure and the doctoral candidate

The dossier submitted in hard copy and electronic form complies with Art. 70(1) of Section I, “Acquisition of the educational and scientific degree ‘Doctor’ and the scientific degree ‘Doctor of Sciences’” at the Medical University – Plovdiv, and with the Regulations of MU–Plovdiv dated 28 January 2021, and includes the following documents:

- Application to the Rector of MU–Plovdiv for initiation of the procedure for defence of the dissertation
 - Curriculum vitae in the European (Europass) format, signed by the doctoral candidate
 - Notarised copy of the higher-education diploma
 - Orders for enrolment in the doctoral programme and for discharge with the right to defend
 - Order for an examination under the individual study plan and the corresponding record of a passed examination or of the doctoral minimum in the specialty
 - Minutes of the Departmental Council on the preliminary discussion of the dissertation and the decisions to open the procedure and appoint the scientific jury
 - Dissertation
 - Author’s abstract
 - List of scientific publications related to the dissertation topic
 - Copies of the scientific publications
 - List of participations in scientific forums
 - Record certifying fulfilment of the doctoral minimum
 - Declaration of originality and authenticity of the submitted documents
- The doctoral candidate has submitted three publications. No citations were identified.

2. Brief biographical data on the doctoral candidate

Dr Stancho Stoyanov Prodanov was born on 13 July 1981. In 2000 he graduated from the Ivan Vazov Language School in Plovdiv with English and French. In 2006 he completed his medical degree at MU–Plovdiv, also earning a qualification as a translator of medical literature from and into French. In 2014 he obtained the specialist qualification in Plastic-Reconstructive and Aesthetic Surgery, attending numerous courses at leading international centres. In 2015 he graduated from the Faculty of Public Health at MU–Plovdiv, specialising in Health Management. In December 2021 he was enrolled as a doctoral candidate at MU–Plovdiv, and four years later the Departmental Council resolved to admit the dissertation to public defence. He has participated in international meetings, conferences, congresses and symposia. Since 2008 Dr Prodanov has worked continuously in the field of plastic-reconstructive surgery. He is proficient in French, English and Russian, with strong computer literacy and advanced knowledge of statistics.

Despite a demanding professional schedule, Dr Prodanov devotes time to numerous hobbies and sports: football referee, martial arts instructor, skipper's licence (up to 40 GRT), PADI-certified diver; he also plays the piano and paints.

3. Relevance of the topic and appropriateness of the stated aims and objectives

The submitted dissertation addresses a significant problem in plastic-reconstructive surgery—electrical injuries. It substantially enriches the Bulgarian literature on the subject. Given the high incidence and severity of these injuries, which often result in profound disability, optimising treatment will improve the quality of life of affected patients and have a considerable societal impact.

4. Knowledge of the subject

The author demonstrates a deep and comprehensive command of the subject, outlining the principal pathogenetic mechanisms of electrical injury. This knowledge underpins coherent conclusions for optimising patient management. The literature review is detailed and well aligned with the overall exposition. It is particularly commendable that a substantial number (17) of sources by Bulgarian authors are cited.

5. Research methodology

The author analyses the management of patients with electrical injury at two of Bulgaria's leading plastic-reconstructive surgery centres—UMHAT “St George”, Plovdiv, and UMHATEM “N. I. Pirogov”, Sofia—over a 10-year period. Appropriate statistical methods are employed, and the large number of clinical cases lends substantial credibility and robustness to the results obtained.

6. Characteristics and evaluation of the dissertation

The dissertation is logically and coherently structured, written in a clear style accessible even to non-specialists. All conclusions are grounded in sufficient source data and appropriate analysis. The figures, tables and charts facilitate a more effective understanding of the results obtained.

7. Contributions and significance for science and practice

The scientific and applied contributions of the dissertation are indisputable. Contemporary knowledge concerning the pathogenesis and treatment of electrical injury is systematised. Criteria are developed for selecting the strategy of the surgical approach and the subsequent therapy and rehabilitation. The dissertation has substantial potential to be developed into a teaching resource for medical students and specialist trainees.

8. Appraisal of the publications related to the dissertation

The publications associated with the dissertation are commensurate with its scholarly merit. I recommend that selected parts of the dissertation be published in the future as standalone articles, which would enhance the visibility of the research and increase its citation potential.

9. Personal contribution of the doctoral candidate

Dr Stancho Stoyanov Prodanov's high level of qualification enabled him, under the supervision of Assoc. Prof. Elean Zanzov, MD, PhD, to collect the data required for the study and to analyse them using appropriate statistical methods entirely independently.

10. Author's abstract

The submitted author's abstract clearly presents the main points of the dissertation in a concise way. It includes all important elements; nothing significant has been left out just to make it shorter.

11. Critical remarks and recommendations

The dissertation provides only a cursory treatment of the management of certain late sequelae of electrical injury, e.g., amnesia following lightning strike. Psychological support at the various stages of care could likewise receive broader coverage.

12. Personal impressions

Unfortunately, I do not know Dr Stancho Stoyanov Prodanov personally; my impressions are based only on the submitted documents.

13. Recommendations for future utilisation of the dissertation's contributions and results

With minimal further development, the dissertation could be turned into a useful teaching resource for medical students and specialist trainees, as well as for all healthcare professionals involved in the management of patients injured by electric current.

CONCLUSION

The dissertation contains scientific, applied-scientific and practical results that constitute original contributions to the field, and it meets all requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation, and the relevant Regulations of the Medical University – Plovdiv. The submitted materials and dissertation results fully conform to MU–Plovdiv's specific requirements.

The dissertation demonstrates that the doctoral candidate, Dr Stancho Stoyanov Prodanov, possesses in-depth theoretical knowledge and professional skills in the specialty of

Plastic-Reconstructive and Aesthetic Surgery, and that he has the qualities and ability to conduct scientific research independently.

In view of the above, I confidently give a positive assessment of the study as presented through the dissertation under review, the author's abstract, the results achieved and the stated contributions, and I recommend that the esteemed academic jury award the educational and scientific degree "Doctor" to Dr Stancho Stoyanov Prodanov in the doctoral programme in Plastic-Reconstructive and Aesthetic Surgery.

15 October 2025, Varna

Reviewer: Assoc. Prof. Konstantin Petrov Georgiev, MD, PhD


Заличено на основание
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