



**„CAROL DAVILA” UNIVERSITY OF MEDICINE AND PHARMACY IN
BUCHAREST
DOCTORAL SCHOOL
DENTAL MEDICINE**

**„CURRENT AND INTERDISCIPLINARY
PERSPECTIVES IN PROSTHODONTICS”**

ABSTRACT OF THE HABILITATION THESIS

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ABSTRACT

The habilitation thesis entitled “**Current and Interdisciplinary Perspectives in Dental Prosthodontics**” is written according to the indications of Article 8, Section 1, Chapter II, of the Methodology on the organization and conduct of the process of obtaining the habilitation certificate at the “Carol Davila” University of Medicine in Bucharest, methodology approved on 25.04.2024 by the University Senate.

The habilitation thesis is a synthesis of the results of the didactic, professional, and scientific activity carried out by the candidate after the PhD thesis entitled “**Contributions to the study of physiognomic and phonetic restorations in totally edentulous patients with the help of removable prostheses**” - Faculty of Dentistry of the University of Medicine and Pharmacy “Carol Davila”, in 2004 and obtaining the Order of the Minister of Education and Research no. 5657 of 12.12.2005 confirmation. The research topics covered by the work carried out by the candidate since her last promotion as an Associate Professor in the Discipline of Total Prosthodontics (currently Dental Prosthetic) of the Faculty of Dentistry, in March 2020 are presented.

The paper is structured in 2 parts and bibliography.

The first part of the thesis presents the scientific and academic achievements of the candidate, with a review of her professional, teaching, and scientific career, highlighting the most important achievements from these perspectives. **In the second part**, the candidate presents her future research topics, which will form the basis of her teaching and scientific career development plan.

In the first part, the chapter “**Scientific, professional and academic achievements**” presents the candidate’s concerns revolving around the aesthetic aspects of total edentulousness and other types of edentulousness (reduced partial, extended partial), as well as those related to current technologies, techniques, and materials in dental prosthodontics from an interdisciplinary perspective, including numerous studies published in journals indexed in ISI Web of Science (WoS) and journals indexed in international databases (IBD), as main author or co-author. As her professional development has progressed and numerous studies have been carried out and published, other research directions have emerged, with the candidate being part of several interdisciplinary research teams. Thus, the candidate was interested in current topics in

prosthodontics, including the use of digital technologies and workflows, aesthetic assessment and the use of digital aesthetic planning software, modern materials and their interaction with the oral environment, topics related to sustainability in dental practice, or the influence of the recent CoVID-19 pandemic in dental work. Other related topics are also presented at length.

The candidate's HIRSCH index of 8 (WoS), 9 (Google Academic), and 9 (Scopus) and the number of citations in ISI-indexed journals WoS - 200, Google Academic - 296, and Scopus - 254, to date, are evidence of the impact and recognition of the candidate's scientific research work.

The following chapters present the varied research topics in detail addressed by the candidate, which are in line with the current international topics in the dental prosthetics field.

The first topic addressed, a continuation of the candidate's constant concerns, is that of „**Current aesthetic aspects in dental prosthetics**”, which includes the following subtopics addressed in numerous studies published in recent years in prestigious journals: 1. „**Conventional and digital aesthetic assessments in total edentulousness. The use of digital software for aesthetic planning**” and 2. “**The selection of dental colour and its importance in the aesthetic success of fixed and mobile dental restorations**”. The results of 4 scientific studies are presented in detail, some presenting original approaches, such as aesthetic planning in total edentulousness using digital software.

The second main theme on which the candidate's research has focused is „**Modern technologies in dental prosthetics**”, since, especially in recent years, all specialties of dentistry are moving towards greater use of digital technologies, dental prosthetics being no exception, dentists and dental technicians having at their disposal various digital or combined workflows that can be used to obtain fixed and mobile restorations. The results of 2 very recently published studies are presented at length.

The next main research theme is represented by „**Minimally invasive techniques**”, which were studied and then published in the form of several scientific articles, from which a relevant article is presented in full, on the use of lasers in dentistry. The research direction „**Modern dental prosthetic materials and their interaction with the oral environment**” occupies an important place in the candidate's concerns, starting from important literature studies, followed by an important number of in vitro studies, published in several 9 scientific articles in important journals. 3 of the most important studies published in recent years in international journals are presented at length.

Two particularly topical issues have been an important and constant concern in recent years, being addressed in four articles: the first is „**Influence of the COVID-19 pandemic on the activity of dental students and teachers of the Faculty of Dentistry of the University of Medicine and Pharmacy, „Carol Davila” in Bucharest**” and the second is „**Sustainability in dentistry**”. One recently published article is presented at length for each of the two themes. Also, the candidate, participating in multidisciplinary research teams, had the opportunity to address some topics related to the main ones in seven articles, participating in the elaboration of a large number of studies on "Oral Health and Community Dentistry" and not least Endodontics.

The candidate's participation in interdisciplinary research, educational, and training projects as project leader, leader, or researcher is another particularly important sub-chapter of the candidate's work. In the last 4 years, I have been involved in 8 research and educational projects with important results.

The candidate's **teaching activity**, an extremely important component of her work, is extensively presented, highlighting the most important stages of her development and her responsibilities in all teaching positions held from the beginning of her academic career until now.

One of the candidate's important concerns is active participation (with oral presentations, posters) in the most important scientific events in the field of dental prosthodontics and dentistry, in the country and abroad, together with colleagues in the discipline and colleagues in multidisciplinary teams, in which the results of all the scientific research activity carried out could be presented.

Participation as a member in committees for the organization of scientific events, in numerous committees for teaching competitions, in the Central Commissions for Admissions and Licentiate at the Faculty of Dentistry, as well as through administrative functions - in the last 4 years she has held the position of Vice Dean for European and International Cooperation, member of the Mobility Commission, as well as of the Commission for Evaluation and Quality Assurance of the Faculty of Dentistry are important dimensions of the candidate's activity. The activity of the Vice Dean includes numerous concerns, including the development of new partnerships with prestigious faculties in Europe, within the framework of ERASMUS Programmes, but also with countries outside the European space, such as the Partnership Agreements with the Faculty of Dentistry of the University of Niigata (Japan) and with the Faculty of Dentistry of the Haddasah University of Jerusalem (Israel). In the last four years, 3 agreements for the exchange of students

and teachers have been signed with 3 other prestigious faculties in Italy (Milan, Chieti - Pescara, Catania), as well as with the Faculty of Dentistry of the Friedrich Alexander University in Erlangen, Germany.

The candidate's medical activity is presented chronologically, from graduation from the Faculty of Dentistry in 1995 to the title of primary doctor in the specialty of Dental Prosthetics achievement in 2019.

The second part of the habilitation thesis - **“Professional development plans”** - is structured on two levels, teaching and research activities.

As far as the teaching activity is concerned, the desire to share with the current generation of students, future dentists, and young residents in the specialty of Dental Prosthodontics, the wealth of knowledge accumulated throughout my career will continue to be a priority. This professional journey has been guided and inspired by the exceptional teachers with whom I have had the opportunity to interact in this noble profession, in the largest, most important, and oldest University of Medicine and Pharmacy in Romania, where I have the privilege to work.

Through all the experiences gained so far, I am determined to contribute to the promotion of modern dental education, perfectly adapted to national and international requirements and standards in the dental field. Interdisciplinary collaboration will continue to be the focus of my research work, and I will continue to develop the themes already outlined. Digital technologies, modern materials in dental prosthetics, and their interactions will continue to be the most important themes on which my studies will focus, having today at my disposal an exceptional material endowment, at the highest international standards, at the premises of the Prosthetics Discipline of the Faculty of Dentistry and in the Laboratory of Digital Techniques in Dentistry, part of the Interdisciplinary Centre for Research and Development in Dentistry of the UMFCD. I have been proudly part of the team of this laboratory for more than a year and a half, where the intense activity and the excellent collaborative atmosphere bring me great professional satisfaction. Participation in interdisciplinary research teams is a fundamental pillar of my work, and it has significantly impacted the realization and publication of important studies in the field of dental prosthetics and my personal development. This process will not only allow me to closely collaborate with the colleagues in my discipline and the research teams I am part of but also to enrich my knowledge and skills through the constant exchange of ideas and perspectives. One of the most important

studies carried out in recent years is presented at length and will soon be published in peer-reviewed journals.

The end of the thesis presents some thoughts of the candidate regarding the continuation and development of her teaching and research work and the bibliographical references used in the elaboration of the thesis, most of her publications being included in this list, thus representing personal scientific achievements that contribute to strengthening the candidate's reputation in the field of dental prosthetics.