



**University of Medicine and Pharmacy
"Carol Davila" Bucharest
Doctoral School, Medicine Domain**

Summary of the habilitation thesis

**"Interdisciplinary aspects of physiology from fundamental research to
medical practice"**

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The thesis is structured in four chapters: scientific, academic and professional activity and plans for the evolution and development of my academic career.

1. Scientific activity

1.1. Field of research

Ever since I did my undergraduate thesis in the discipline of physiology, the most important field of my research activity has been that of physiological sciences, which I consider to be the most integrative field of research in medicine. I had the opportunity to collaborate and form research teams with colleagues from preclinical disciplines, but also with doctors from various medical and surgical specialties.

1.2. Research themes developed and studies carried out

The doctoral thesis was titled "Considerations on the immunological and physiopathological changes in blood and saliva in viral and toxic hepatitis".

The research themes that I have carried out and which I have materialized through the publication of articles in ISI and BDI indexed journals, have focused on several directions: salivary changes in physiological and pathological conditions, morphofunctional studies of the oral cavity, changes in renal function, aspects of inflammatory and steatosis liver changes, research on the treatment of non-malignant skin lesions, studies on different types of cancer, studies on therapeutic surgical techniques, studies on autoimmune diseases and psychometric studies.

1.3. Research projects

I was a member of the research team for the "Evolution of chronic gastritis and intestinal metaplasia after eradication of CagA+ Helicobacter pylori Strains" project, and I participated as a project manager in the "Youth Community -based Oral health Learning Model Com4you" project.

1.4. The results of my scientific and research activity are published books and articles. I participated in the development of 17 specialized books published by CNCSIS (12) and international (2) accredited publishing houses. I am the co-author of 5 books, and the main author of 12 books. I have published a number of 64 ISI articles *in extenso* rated with an impact factor, being a main author of 14 of these studies. Furthermore, I published 8 articles in ISI journals without an impact factor. I am the first author of 16 *in extenso* articles published in BDI indexed journals and I am co-author of 27. Additionally, I am the author of 69 summaries published in specialized journals. The articles I published have a number of 473 Web of Science citations and my H-index is 14.

I am a member of several professional associations: the Romanian Society of Physiological Sciences, the European Federation of Physiological Societies, the International Society of Physiological Sciences, the National Society of Neurosciences, the European Federation of Neurosciences.

2. Academic activity

2.1. Academic background and main teaching responsibilities

In 1993, I graduated from the University of Medicine and Pharmacy "Carol Davila" in Bucharest, Faculty of General Medicine. In 1994, I became a university trainer through a competition, within the Physiology Discipline, Faculty of Medicine, University of Medicine and Pharmacy "Carol Davila" Bucharest. Through the competition, in 1998 I became an assistant professor and in 2002 I became lecturer. I obtained the title of Doctor of Medicine in 2007. Also, through competition, starting from October 2019 I became an associate professor.

I supported the didactic activity of teaching and evaluating medical students. For over 20 years, from 2002 until now, I have coordinated the activity of the Physiology Discipline of the Faculty of Dentistry. I also coordinated the didactic activity of physiology for the students at the Colleges of Dental Technology (in 2007, 2011, 2012, 2013, 2014), Dental Prophylaxis (in 1995-2004) and Nutrition (in 2003, 2004, 2005).

The didactic materials developed are represented by the presentations used in the courses and the practical works and 17 specialized books. 15 specialized books cover the subject of teaching, to 8 of them I contributed as the main author and coordinator. I co-authored an endocrine physiology monograph and sole authored a physiology gridded test book for undergraduates.

2.2. Guiding the students to the undergraduate theses and to the student scientific communication sessions

I coordinated a number of 50 undergraduate theses. I participated in the scientific communication sessions of the students, both as a coordinator of the scientific works and as a member of the jury. We have formed study and research groups made up of first-year students as well as final-year students.

2.3. Participation in admission exams, license, promotion

I participated in the admission contests as a member of the technical commissions in the period 1997-2002 and as a member of the commissions for drafting biology subjects in the years 2003-2015 and 2017-2024. I have participated every year, from 2002 to the present, as a member of the license support commissions. I also participated as a member or president in the

competition commissions for promotion in the university career within UMF "Carol Davila" Bucharest as well as within other universities in the country.

2.4. Administrative and managerial activities (leadership functions, activity within councils and commissions in the interest of education)

Between 2004-2008 I was an elected member of the Faculty Council of the Faculty of Medicine. Since the beginning of this academic year, I have been an elected member of the Faculty Council of the Faculty of Stomatology.

3. Professional activity

After finishing my undergraduate studies, in the period 1993-1994 I worked as an intern doctor. In 1994 I became a resident doctor, and in 1997 I took the specialty exam and became a specialist in General Medicine for Adults. Between February 2018 and August 2018, I attended nutrition courses and obtained my diploma and qualification as a nutrition technician.

4. Academic career development and development plans

4.1. The main directions of scientific research are: 1) diabetes – inflammatory syndrome (the role of paraoxonase-1) – comorbidities – salivary markers; 2) the cognitive effects of semaglutide; 3) the roles of taste receptors outside the mucosa of the oral cavity.

4.2. Management of future projects

The research objectives that I propose and consider achievable in the short term are the following: the organization of a research laboratory as a work base, the co-optation of young students and doctors from several specialties in our team, connections with other university centers in the country and abroad, publication of results, organization of interdisciplinary meetings. More difficult to achieve is finding sources of funding for research projects. Encouraging, positive aspects are represented by the experience I have acquired in 30 years of teaching and research career, the enthusiastic teamwork of our research group, and not least by the active presence, support and encouragement from colleagues and members of the faculty management and the university.

Bibliography - contains 108 titles