

**CAROL DAVILA UNIVERSITY OF MEDICINE
AND PHARMACY BUCHAREST
DOCTORAL SCHOOL
MEDICINE**

**Surveillance, prevention and control of
communicable diseases – theoretical, scientific
and practical approach**

HABILITATION THESIS ABSTRACT

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2022

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– Habilitation thesis abstract –

This habilitation thesis is based on my experience gained during the 20 years of teaching activity and over 30 years of medical activity of epidemiology, public health and scientific research, within the Carol Davila University of Medicine and Pharmacy, the Ministry of Health, the Cantacuzino National Research and Development Institute and the National Institute for Infectious Diseases „Prof. Dr. Matei Balș”. The thesis presents the main steps and achievements, as well as plans for future development in the academic, scientific and professional field.

The thesis is structured in four chapter according to the University of Medicine and Pharmacy guideline for drawing up and drafting the habilitation thesis.

Chapter 1 is dedicated to my academic activity. The teaching involves a great responsibility towards students and residents, but also towards our younger colleagues, to whom we must offer motivation, practice models and tutoring. The teaching component has always been an important and gratifying part of my activity, ever since joining the Carol Davila University of Medicine and Pharmacy Bucharest in 2000, initially as volunteer, and then as Assistant Lecturer (2002), Lecturer (2006) and, since 2015, as Associate Professor in Epidemiology. Epidemiology is taught at our department to students from the Faculties of General Medicine, Dental Medicine, Nurses and Midwives, and to resident physicians from the specialties of Epidemiology, Public Health and Management, Infectious Diseases, Clinical Microbiology, Hygiene, Pneumology, Family Medicine, Laboratory Medicine.

Part of my teaching activity, I have also been involved in optional courses, postgraduate courses, complementary study programs, implemented through the Carol Davila University of Medicine and Pharmacy, Bucharest, through professional societies, as well as the National School of Public Health, Management and Professional Development.

I was involved in some international collaboration in order to develop the portfolio of teaching activities within the Carol Davila University of Medicine and Pharmacy. For example, European Program Training in Infection Control in Europe (TRICE) in which the list of core competences for the staff responsible for infection control and hospital hygiene in the European Union has been drawn up, European Committee on Infection Control (EUCIC), „Integrated Applied Genetic Training – AppGenEdu” Project, ID EY-COP-0029.

I have also contributed to the development of the study curricula, books and course materials for students and residents training in Epidemiology, and I have coordinated more than 20 bachelor theses and more than 10 dissertation theses. Furthermore, I am currently coordinating 4 bachelor theses and 8 dissertation theses, as well as a set of scientific publications, in which I am actively involving students, residents, and PhD candidates for whom I am part of the coordination committee.

Chapter 2 presents the main scientific and research achievements. Research has always been an integral part of my career, and throughout the years I have focused on a set of priority research and development domains, such as: vector-borne diseases, including but not limited to: West Nile virus infection, real-world influenza vaccine effectiveness, surveillance of influenza and of other communicable diseases, vaccine-preventable diseases, HIV infection. Since defending my PhD thesis, in June 2006 I have participated as a responsible or technical project manager in 7 European projects obtained through international competition, as a member of the research team in 6 projects (of which 4 international projects). I have published 93 articles, of which 51 articles published in journals indexed in the Web of Science (16 as first author), which have been cited in the Web of Science 1471 times. Citations of these publications make the Hirsh index 17 in the Web of Science, 18 in Google Scholar and 17 in Scopus. Eight articles were awarded in the UEFISCDI competition - awarding the research results (2014-2018, 2021).

Chapter 3 describes the main professional activity that have been focused on epidemiology and public health. I have been involved in managing the 2009 influenza pandemic, poliomyelitis surveillance and alerts, Ebola infection alerts, infection prevention and control, and, more recently, COVID-19.

I am a member of the National Committee for Certification of Poliomyelitis Eradication from Romania (CNCEP) since 2002. CNCEP is a consultative structure designated by the

Ministry of Health to ensure the professional support necessary for the smooth running of activities dedicated to maintaining the status of a polio-free country and avoiding any situations that could lead to accidental contamination of the environment or the population. Such structures exist in all member states of the World Health Organization Europe Region. As a member of this committee, I have actively participated in all the meetings and trainings that have been organized on this topic, knowing the risk of transmission that currently exists worldwide. Each year I participated in the assessment of the poliomyelitis vaccination coverage, surveillance of acute flaccid paralysis (AFP) and environmental surveillance, and I contributed to the country report. I also participated in the revision and updating of the National Plan for maintaining the status of a polio-free country.

I was part of the Ebola Operative Intervention Command, which organized a department within the National Institute for Infectious Diseases "Prof. Dr. Matei Balș" designated for the management of patients suspected of Ebola virus infection. I have also been involved in the training of healthcare personnel for the prevention and control of the transmission of Ebola virus while also organizing a course on Biological Risk Management and courses on the correct use of personal protective equipment. These activities proved to be extremely useful when, in the beginning of the current COVID-19 pandemic, our Institute's personnel were once again retrained regarding the use of personal protective equipment adequate to the dimension of the anticipated risk.

I was awarded the Order of Sanitary Merit in the rank of Knight, conferred by the President of Romania, April 2010 for the special contribution in medical research and practice, as well as a sign of appreciation of the meritorious activity carried out within the health system and the Certificate of Appreciation for participation in polio eradication actions, offered by the Regional Director of the World Health Organization, September 2002.

As directions for future development, presented in chapter 4, my main objective is to permanently improve my teaching activity, so that I can contribute to the educational standards of the Carol Davila University of Medicine and Pharmacy. I will also try, as before, to combine teaching with my professional activity and with scientific research.

I will continue to work with the Ministry of Health and the National Ministry of Education - CNERED as National Coordinator for the Recognition of Professional

Qualifications, for the recognition of the specialty of Epidemiology in the European Union. Also, I will participate together with my colleagues from the other medical universities in the country in updating the epidemiology curriculum and the theme for the specialty exam, as well as the standardization of the training curriculum with the curricula at European level

At the invitation of the President of the Society of Physicians of the Communities of Children and Youth, the School Medicine Commission and Travel Medicine Society, I will participate in the organization and development of the Certificate of School Medicine and Travel Medicine.

I will continue the research activity (DRIVE - Development of Robust and Innovative Vaccine Effectiveness, Innovative Medicines Initiative, Horizon 2020 and COVIDRIVE projects). Together with my colleagues from the discipline we will develop projects with which to apply to different national and international competitions.

At the Epidemiology Department of the Carol Davila University of Medicine and Pharmacy, I have managed to bring together young and dedicated professionals, with strong passion for teaching and science. Also, in the future, I will strive to provide future students and younger collaborators with an example of dedication and involvement in scientific and research activity, epidemiology and public health.

Bucharest, August 2, 2022