

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

**CLINICAL PRACTICE AND RESEARCH IN
INFECTIOUS DISEASES: ESSENTIAL
DIRECTIONS FOR FUTURE CHALLENGES**

HABILITATION THESIS ABSTRACT

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Clinical practice and research in infectious diseases: essential directions for future challenges

– Habilitation thesis abstract –

Medicine is a constantly changing and improving science, and it is developing at an impressive pace through the emergence of new theories, diagnostic methods, clinical scores and therapeutic targets. The field of infectious diseases comes with its own set of particularities, and the COVID-19 pandemic has shown us that we still need to accumulate further knowledge about the microorganisms around us.

The emergence of SARS-CoV-2 has specifically reiterated the importance of the infectious disease practitioner. The infectious disease physician should not be seen as a mere prescriber of antibiotics or antivirals, but rather as playing a crucial role both at the individual level (for the patient) and at the macro-social level of public health systems. The vital role of infectious disease physicians began to be quantified with the increasing occurrence of emerging infections and culminated in the COVID-19 pandemic. Infectious disease practitioners do more than protect the health of their patients. Due to the unique interdisciplinary nature of this field, infectious disease physicians provide a service at the population level, helping to ensure the health of the entire community.

This habilitation thesis focuses on the identification of potential future challenges in the field of infectious diseases and in proposing essential directions for targeted research and development. The thesis describes my previous and planned future involvement in scientific, academic and professional activities.

Some of the research topics that I have focused on have included screening projects for viral pathogens of utmost priority, such as hepatitis viruses B and C, and human immunodeficiency virus (HIV), advanced diagnostic techniques and treatment options with clinical applicability in infectious diseases, as well as the development of clinical, laboratory and research infrastructure.

Part of my research and scientific activity, I have also focused on the communication of research data relevant to the clinical perspective to the medical community, through constant participation in national and international scientific conferences, and through publications in highly renowned international infectious diseases journals.

Part of my medical career, I am a senior specialist in infectious diseases, with complementary studies in travel medicine, and completing my secondary medical specialty training in allergology and clinical immunology. In the academic field, I have started my teaching career as Junior Assistant Lecturer, and then continued through all the subsequent career steps as Assistant Lecturer, Lecturer and Associate Professor at the Department of Infectious Diseases. Generations of students are in a continuous change, a natural process that comes in parallel with macro-social changes. Therefore, the teaching profession requires a continuous evolution and development to meet the requirements of students and to be able to share with them information that they can easily assimilate for their entire medical career.

Because a successful educational process does not simply involve memorizing of information, but rather integrating it into real world clinical practice, I have always applied the best tools available to ensure that the students are stimulated to integrate the data they learn. Interaction with the student is essential for learning medicine and I consider that it is important that the student is at the center of the educational process in order to be able to shape future generations of high academic quality. The student must be brought into real world clinical practice, taken as a partner along with the resident in the diagnosis and management of cases.

After presenting the professional, scientific research and academic activities that I have performed so far, the habilitation thesis concludes by presenting specific future plans in the field of HIV research, novel therapeutics for chronic viral hepatitis B and integrated management for the patient with chronic hepatitis C, rational therapeutic and prophylactic antimicrobial use as well as research plans for monitoring the circulation and pathogenicity of respiratory viruses, including SARS-CoV-2.