

ABSTRACT OF HABILITATION THESIS

This thesis is structured in three parts, according to criteria recommended by CNADTCU.

This habilitation thesis presents a comprehensive overview of my **scientific, professional, and academic activity during the period 2014–2026**, following the presentation of my doctoral dissertation entitled “**The Efficacy of Benfotiamine in the Prevention and Reversibility of Chronic Complications of Diabetes Mellitus: Biological, Functional, and Clinical Aspects**” at “**Carol Davila**” University of Medicine and Pharmacy, Bucharest. At the time of its completion, this doctoral research represented a **pioneering contribution in Romania**.

The habilitation thesis is structured into **three main sections**, in accordance with the criteria recommended by CNADTCU.

The **first section** presents data related to my **postdoctoral scientific and academic activity**, beginning with my research output. The ISI-indexed articles published as **first author and co-author** have covered my core research interests, focusing on **clinical–functional correlations in metabolism, obesity, diabetes, nutrition, and metabolic diseases in adult pathology**. This activity was supported by my clinical practice at the **Central Military Emergency University Hospital “Carol Davila”**, as well as by my involvement in the **Center for the Study of Metabolism**. Within these institutions, research was conducted both on **animal models**—using the experimental infrastructure available at SUUMC “Carol Davila” at that time—and through **clinical studies**, including pharmaceutical industry–initiated trials as well as **investigator-initiated academic studies**, often supported by multidisciplinary research projects.

My research activity spans from the evaluation of **animal models of diabetes mellitus obtained through genetic manipulation**, to **toxic pancreatic models of diabetes**, and further to **multicenter clinical trials** that contributed to the development of medications currently used in routine clinical practice. All these stages support my postdoctoral scientific activity, which had its **true onset during my student years** and has been continuously developed over **more than 20 years** in my field of interest, within a highly rewarding medical specialty in Romania.

The international visibility of these publications led to my engagement as a **reviewer for ISI-indexed journals with impact factors**, including *Children*, *Endocrines*, *Dietetics*, *Medicina*, as well as to my appointment as an **Expert for the European Commission**, within the **Marie Skłodowska-Curie Actions** and the **HORIZON 2020** program.

A dedicated section is allocated to my **over 20 years of research activity**, during which I received **more than 100 clinical study proposals** and coordinated, as **Principal Investigator**, **over 40 international clinical trials** addressing clinical aspects in patients at cardiovascular risk, both within my primary field of interest and in **rare diseases**, such as **Primary Biliary Cholangitis**. This section is further complemented by the presentation of **research projects** in which I participated as **team member, project director, or implementation expert**, carried out and continued both **pre- and postdoctoral**.

My scientific activity has been formally recognized through:

- Appointment as **Head of the Diabetes Program** within SUUMC, a role successfully fulfilled over a two-year period;

- Appointment as **member of the Balkan Military Medical Committee**, serving actively for four years and currently holding **Honorary Membership**;
- Numerous **national and professional distinctions** awarded by the **Ministry of National Defence and the Medical Directorate**;
- Appointment as **national coordinator** for competitive clinical research projects (outside state-appointed frameworks);
- Selection as a **member of European research project evaluation committees**, as an **Expert for the European Commission**, most recently in **2025**;
- Coordination of the **Center for the Study of Metabolism**, a private initiative involving multiple ongoing clinical research projects across **more than ten medical specialties**;
- Sustained **peer-review activity**, with **over 100 reviewed articles in the last two years alone**.

I have published **chapters in specialty textbooks**, as well as articles in **national and international journals**. I have benefited from **training grants**, specialized courses, and continuing education programs in my field of interest, organized by the **International Diabetes Federation**, the **European Association for the Study of Diabetes**, and the **European Federation of Internal Medicine**, which opened new horizons for scientific collaboration. My most recent textbook contribution appears in the **nationally coordinated Treatise of Diabetes**, under the editorship of **Prof. Dr. Bogdan Timar**.

The chapters to which I contributed in national specialty textbooks remain, as of **2025**, part of the official curriculum for the **specialty examination**. I also contributed to the development of the **new Treatise of Diabetes**, coordinated within the **Romanian Society of Diabetes, Nutrition, and Metabolic Diseases**.

The **second section** of the thesis is dedicated to my **future research plans and academic career development**. In all research projects and clinical studies in which I have participated, my contribution has been recognized as substantial by the beneficiaries of these projects, with a measurable impact reflected in a **Web of Science h-index exceeding 11**, and **over 4,000 international citations** of articles in which I participated as a member of principal investigator teams. My work has also contributed to the **development of medicinal products**, resulting in **two patents**. A solid foundation for these future projects is provided by my extensive peer-review activity, encompassing **more than 100 articles reviewed in ISI-indexed journals**, documented in the **Web of Science database**.

The **third section** includes all references used to describe my scientific activity, comprising **personal and international references**, as well as bibliographic contributions to date, including **book chapters, chapters in national treatises, and specialized medical books** within my field of interest.