

**”VICTOR BABEȘ” UNIVERSITY OF
MEDICINE AND PHARMACY FROM TIMIȘOARA
DOCTORAL SCHOOL
MEDICINE DOMAIN**



**MULTIDISCIPLINARY APPROACHES IN PEDIATRIC
ONCOHEMATOLOGY AND PALLIATIVE CARE:
BRIDGING RESEARCH AND CLINICAL PRACTICE**

ABSTRACT

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My name is Estera Boeriu, and I was born in Gurahont, Arad County, in 1963. In 1981, I graduated from the Medical High School in Arad and was admitted to the Faculty of Medicine the same year. I developed a passion for pediatrics during high school, and from the beginning of my medical studies, I aspired to help children in need, having Prof. Louis Țurcanu as my mentor and pediatrics professor. I graduated from the Faculty of Medicine in 1987 and, as a young intern, began working with Prof. Louis Țurcanu at the Children's Hospital.

Subsequently, I had the opportunity to join the team led by Prof. Margit Șerban at Clinic III Pediatrics, focusing on both clinical and research work. I was extremely enthusiastic and dedicated my resources and skills to this field.

From 1993 to 1995, I was a pediatric resident at the "Louis Țurcanu" Emergency Clinical Hospital for Children, where I honed my clinical skills and specialized in pediatrics. During the same period, after passing the relevant exam, I became a University Assistant in the Department of Pediatrics.

I began my doctoral studies in 1996. My dissertation, titled "Pediatric Risk Factors for Atherosclerosis," was supervised by Prof. Margit Șerban and presented in 2004, with official confirmation via the Minister of Education's Order no. 3184/07.02.2005. The chosen field for my doctoral thesis was pediatrics, focusing on identifying predictive risk factors for atherosclerosis. The main objective was to highlight and define the primary risk factors to enable early lifestyle interventions for children from Timișoara and rural areas, as well as high-risk groups. This was my first research project, and the results were presented at both international and national conferences.

Another significant focus of mine has been alleviating the suffering of children with incurable diseases, and I have sought to gain knowledge and training in this field. With interests in onco-hematology since the beginning of my medical career, I obtained my first pediatric oncology certification in 1999, through the Ministry of Health's Order series C no. 001752 dated 14/05/1999. I continued to advance my expertise in this domain, and in 2004, I completed my certification in palliative care.

In 2000, after passing the required examination, I became a senior pediatrician and continued my work at Clinic III Pediatrics. In 2006, I obtained a second specialization in medical oncology, and in 2019, with the recognition of pediatric onco-hematology as a specialty in Romania, I also acquired this qualification.

My habilitation thesis synthesizes and encapsulates my research and academic activities. Titled "Multidisciplinary Approach in Pediatrics, Oncology, and Palliative Care: From Research to Clinical Practice," this work highlights the achievements made since I earned my Ph.D. in 2004. Methodologically, the thesis is structured according to academic standards: (i) scientific activity, (ii) academic achievements, (iii) professional activity, and (iv) career development plan.

Chapter 1 – Scientific Activity

The chapter on scientific activity will present my involvement in original studies and articles published in international ISI-indexed journals, as well as in BDI and national journals. Additionally, it includes descriptions of papers presented at conferences and congresses within the current scientific context of pediatric onco-hematology and palliative care. This chapter also contains information about books, monographs, and courses for students published at the national level.

In terms of interests developed after earning my doctoral title, I focus on onco-hematology, palliative care, the development and enhancement of education and research in these fields, and increasing the visibility of this discipline as well as related areas such as immunology, laboratory medicine, genetics, and infectious pathology.

My research activities have been conducted within multidisciplinary teams, collaborating with colleagues from onco-hematology, palliative care, immunology, pneumology, pediatrics, genetics, and gynecology, both nationally and internationally.

These original research efforts contribute to the enrichment of knowledge in the field of pediatrics in general and specifically in pediatric oncology. They introduce new concepts regarding the methodology of interacting with patients suffering from onco-hematological conditions, whose disease trajectory can often be unpredictable or unfavorable, as well as their caregivers. Despite significant advancements in therapeutic approaches over the past decades that have altered the progression of these diseases, there remains a substantial segment of patients who experience unfavorable outcomes.

This chapter also addresses secondary but equally important topics, such as the quality of life in adult oncology patients or during the SARS-CoV-2 pandemic, and telemedicine approaches in palliative care and related pathologies.

The chapter proceeds with detailing scientific advancements, achievements, and recognitions obtained. Throughout my professional, medical, scientific, and academic career, I have participated in numerous national and international congresses, engaging in all forms of interactions (poster presentations, oral presentations, guest speaking). This participation has facilitated the dissemination of research findings. I have contributed to 155 oral and poster presentations at national and international conferences, 66 of which were as the primary author.

In terms of scientific recognition, my work has received national awards at the Pediatrics Congress and the Genetics Congress, as well as professional and educational merit acknowledgments from the National Association for Palliative Care.

Regarding the relevance and impact of my scientific results, the chosen research topics span multiple directions and aspects of pediatric onco-hematology, medical oncology, and palliative care. These efforts focus on improving quality of life in this sector and bridging the gap between clinical multidisciplinary approaches and research. This is reflected in the books and articles I have published, which demonstrate originality, relevance, synthesis capability, integration of scientific concepts, high scientific standards, and a complex approach. Consequently, I have authored and published several books: one as the primary author and five as a co-author or editorial team member, including one with an international publisher.

I have published 23 in extenso articles, 10 as the primary author and nine in collaboration with other authors, in ISI-indexed scientific journals with impact factors. Additionally, I have published 4 full-length articles in BDI, internationally indexed databases in scientific journals. I have 72 abstract publications, including 48 articles in ISI-indexed journals. My publications in various international ISI journals have had significant scientific impact, accumulating a total of 89 citations in the ISI Web of Science system and achieving a Hirsch index (h-index) of 6. Furthermore, I have reviewed articles for the American Journal of Therapeutics and other ISI/BDI-indexed journals at both national and international levels.

As a member of the research team at Clinic III Pediatrics, I have conducted research activities within nationally competitive projects on hematology, immunology, and lymphoproliferation, as well as international projects. These include representing our university alongside other institutions in the "Leonardo da Vinci" project, Ro/95111Ex - Training Trainers in Palliative Care 2007 at Lancaster University, and

in the ERASMUS+ project Translating International Recommendations into Undergraduate Palliative Care Curriculum (EDUPALL) from 2017 to 2020.

Chapter 2 – Academic Achievements

This chapter focuses on my academic achievements and my subsequent career as a faculty member. I was appointed as a University Assistant in 1995. Recently, in 2024, following a competitive process, I became a Lecturer in the Department XI of Pediatrics at Clinic III, part of the "Victor Babeș" University of Medicine and Pharmacy in Timișoara. My primary role has been coordinating students in the practical activities of clinical internships for fifth-year students in the General Medicine program (Romanian/English track), as well as teaching courses and clinical internships for third-year Nursing students in palliative care during the 2020-2021 academic year.

I have contributed to the modernization and adaptation of teaching activities in line with current requirements and international models. I developed educational materials and introduced new courses, leading the Timișoara group in the project "Development and Pilot Testing of an Integrated Palliative Care Curriculum for Medical Oncology Residents (ONCOPALL)" from 2017-2018. I collaborated with pediatric oncology colleagues nationwide and authored the "National Medical Practice Guide for the Diagnosis, Treatment, and Monitoring of Cancers in Children and Adolescents" as part of the project "Enhancing Performance in the Diagnosis, Treatment, and Monitoring of Cancers in Children and Adolescents in Romania" under the "Public Health Challenges in Europe" program, funded by the European Economic Area Financial Mechanism 2014-2021 (www.srohp.ro/pentru-medici/ghid-de-practica/), pages 190-205 and 271-274.

I am the local coordinator of the Palliative Care Certification for the Western part of the country since its inception. I have participated in the pediatric student circle, coordinated student presentations at student conferences, organized and implemented palliative care curricula for oncology residents, encouraged their participation in scientific events, and supervised 23 diploma theses.

Chapter 3 – Professional Activity

This chapter outlines the evolution and key professional achievements in the medical field. In 1995, following my training as a resident physician at the Children's

Hospital in Timișoara, I became a specialist pediatrician, and in 2000, I was promoted to primary care pediatrician.

In 2005, I gained certification in Palliative Care, and in 2006, I became a specialist in medical oncology. In 2008, I received approval to establish a Palliative Care unit after initiating the necessary steps to create a five-bed unit within Clinic III Pediatrics at the "Louis Țurcanu" Emergency Children's Hospital in Timișoara, which I have been coordinating ever since. In 2019, the specialty of pediatric onco-hematology was officially recognized, and I obtained this qualification. In the same year, I completed a certification program in Public Health Services Management.

My leadership and coordination skills are demonstrated through my involvement in various working teams and engagement in research projects as a member, trainer, and expert. I secured one grant as a local coordinator and participated as a team member in four other research projects. I organized two symposia for family physicians in Timișoara on Palliative Care topics in 2012 and 2016 to disseminate and increase the visibility of this specialty. Alongside colleagues from the United States and Transylvania University of Brașov, I organized an international Masterclass in Pediatric Palliative Care in 2021, attended by 62 participants from seven countries.

Chapter 4 – Career Development Plan

The career development plan represents an essential strategy for guiding progress in the medical, academic, and research domains. It is designed to encompass all three areas while fostering their interconnection. Specifically, I believe that my achievements since obtaining the doctoral title can lay the groundwork for new guidelines and manuals, particularly aimed at active medical professionals and students at the University of Medicine and Pharmacy. Furthermore, by applying new knowledge gained from studies and research, we can develop and implement new measures and technologies within the fields of onco-hematology and Palliative Care.

Moreover, the career development plan is grounded in the principles of high-level research, responsibility, interdisciplinary communication, and professionalism. I believe these values must be transmitted to future generations to maintain and enhance the reputation of onco-hematology and Palliative Care disciplines, as well as that of the "Victor Babeș" University in Timișoara. Additionally, I will always

advocate for the active involvement of students and resident doctors in medical and academic activities, fostering a crucial link with future generations.

Therefore, through guiding future doctoral theses, I aim to stimulate research efforts in onco-hematology and Palliative Care while developing doctoral students as medical professionals, academics, and individuals. I am confident that by mentoring them and disseminating their results, we will enhance the visibility of the University both nationally and internationally.