

HABILITATION THESIS- SUMMARY
LIVER DISORDERS IN PEDIATRIC POPULATION - INTEGRATIVE APPROACH
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The habilitation thesis that I have realised is presenting my scientific research in Paediatrics, in the specialty of Gastroenterology, Nutrition and Paediatric Hepatitis and my professional and academic experience as well as some plans for developing my professional, scientific and teaching career.

The thesis comprises of four big chapters: Scientific activity/Scientific results, Academic Activity, Professional activity, Career Development plan on the academic field.

The first part is presenting my scientific research, the most relevant since I have joined the UMF ‘Carol Davila’ Bucharest community in 1994.

In 2002, I have received the title of Doctor in Medicine at UMF ‘Carol Davila’ Bucharest with the PhD: ‘Chronic Viral Hepatitis in children- diagnosis and treatment’. The data presented in the thesis was the first study in Romania related to epidemiological characteristics, clinical and therapeutic of chronic viral hepatitis in children and it was the starting point for further studies in this field but also the outset for bolder projects: enzymatic therapy of hepatic metabolic disorders, paediatric liver transplant.

The next chapter is dedicated to scientific activity, research and publishing. The first part is dedicated to the research activity in two parts: description of the main research topics and research results and scientific activity, including journal publications, books, communications in official medical conferences, participations in scientific manifestations.

The main research topics that are to be reviewed: research in paediatrics with subchapters dedicated to scientific activities in the field of paediatric emergencies and toxicology, paediatric pneumology, obesity found at children; then in the field of paediatric gastroenterology and hepatology with mentioning projects, studies, international clinical studies for each addressed topic.

All the articles and scientific communications that are presented in this thesis are centred around paediatric pathology, focusing on an important topic for children’s health and

the general population with economic, social and psychological impact- **liver disorders** in children.

Regarding my scientific and publishing activity, I have been part of the redaction committee for three paediatric books for this department. I have put together chapters for the department's Paediatric Course: two in Treaties and Protocols in Paediatrics, chapters regarding liver diseases found at kids, the vaccine treaty. In total, there are 21 published articles in-extenso, in ISI Thompson Reuters journals, from which in 16 of them I am the lead author, 38 published articles in-extenso in indexed journals based on BDI data. I have published 47 summaries of clinical studies with presentations at international conferences in indexed ISI journals. I have held over 280 presentations at medical conferences at the national and international level. In this paper I have detailed some of my published work. I have realised an Index Hirsh 6 in Web of Science- Core Collection, having 65 citations. The most influential article being the one based on the epidemiologic study in the South-East of Romania, related to the chronical hepatitis in children with particular data of transmission, the type of viral infection and implications of therapy.

In the papers presented at the scientific conferences, congresses, and in the lectures conducted online, the main topics we approached were those dedicated to chronic hepatopathies, cholestasis syndromes, and, viral, toxic, metabolic or immune liver diseases, complications of liver diseases, elements of nutrition in liver diseases and their paediatric peculiarities related to diagnosis and treatment. In the course of my work, I have participated in international and national multicentre clinical trials: 10 international clinical trials as principal investigator, member in 10 international clinical trials as a sub-investigator. Moreover, I have been a member of the research team in 3 national studies. Seven international multicentre clinical trials have targeted innovative therapy in chronic viral hepatitis in children. One of the studies has been audited by the FDA with excellent results.

Furthermore, I have participated in research teams in four National Research Projects: VIASAN Program (2005-2008) SMARTASTM "Diagnostic and monitoring paediatric asthma in clinical aspects, immunological and treatment using advanced elements of computer technology", MIRVI Program - National Project II-42-164 (2008-2011) "Molecular investigations of acute respiratory infections caused by non-flu viruses with the assessment of implications in the pathology of the infant and young child", c, Program CAPACITIES Module III (2012-2014) – GENCIL Bilateral Cooperation National Institute for Research and

Development in Pathology and Biomedical Sciences "Victor Babes" and the Institute of Genetics of Cyprus "Epidemiology And Genetics of Ciliary diseases" (Epidemiology and genetics of ciliary disorders), Project Nucleus 19 14 02 02, (BIOTHERAPY/ Contract no. 47N from 13.03.2019) (2019-2022) taking place in INCDMM Cantacuzino "Analysis of the intestinal microbiota in health and disease: pilot study based on high-yielding sequencing".

I have had the opportunity of being involved in the scientific committees of paediatric events: the National Congress of Paediatrics, AREPMF, the National Congress of Gastroenterology, the National Congress of Gastroenterology, Paediatric Nutrition and Hepatology. I have contributed in organizing of two editions of the Symposium of Gastroenterology, Paediatric Nutrition and Hepatology.

The second chapter presents my didactic and academic journey. I started my teaching activity as a university professor in 1994 and subsequently went through all the steps of the academic hierarchy, becoming a university lecturer in 2022. Throughout this period, I have been not only involved in ordinary teaching, but also practical teaching. I have held courses and practical work for students, residents, and post-graduate courses.

Since 2018, I have been the Head of Discipline of the Paediatric Department of the Clinical Emergency Hospital for Children 'Grigore Alexandrescu' Bucharest. Thus, my activity has become more complex and diversified, along with the activity of teaching and continuous improvement of medical knowledge, I am also concerned with organizational activities and collaboration activities with my colleagues from the department.

The third chapter refers to my professional activity as a doctor within the Pediatric Clinic of the Clinical Emergency Hospital for Children 'Grigore Alexandrescu' Bucharest. I have described the steps taken for my professional training, the overspecialization courses, the skills gained, the exchanges abroad, and the internships that have completed my professional training. These steps have been crucial to the improvement of my medical clinical activity and have greatly influenced my didactic and scientific research activity. Moreover, I have highlighted the activities that I carried out, related to the medical activity and the responsibilities put upon me as a senior paediatrician and senior gastroenterology paediatrician.

Since 2012, I am the Chief of the Paediatric Clinic 3 Section of the Clinical Emergency Hospital for Children 'Grigore Alexandrescu' Bucharest.

From 1997 to 2017, I was a member of the Committee of Experts of the National Health Insurance, for the approval of the treatment of chronic viral hepatitis, liver cirrhosis and inflammatory bowel diseases, contributing to the development and updating of paediatric therapeutic protocols for chronic hepatitis B and C.

During my involvement at the Hospital, I have coordinated the program National Health Program of the Ministry of Health „Chronic hepatitis in child” (Subprogram 2.5.5) and currently I coordinate the National Program for Rare Diseases - Mucopolysaccharidosis type 2 - hunter syndrome and a donation program for liver damage in a metabolic condition - LAL-D deficiency.

Thanks to my experience in the field of paediatric hepatology, I was included in 2022 in the liver transplant team of the paediatric liver transplant centre from SCUC ‘Grigore Alexandrescu’. I was honoured to receive, in 2023, in recognition of the merits of my medical work, the Prize for Medical Excellence and human involvement at the Zetta Gala for Paediatric Liver Transplant.

The fourth part of the thesis is the academic, professional, and scientific research development plan. The objective that I have been aiming in my academic career is to achieve the modernization and adaptation of the educational process. By integrating methods of modern teaching, it will increase the quality of teaching and the degree of interconnection with students and colleagues. I am in favour of supporting and encouraging the individual and collective scientific research. It can be enhanced by diversifying the methods and fields of medical research, by encouraging multidisciplinary involvement, by connecting and integrating into the national and international medical academic network and by enhancing the degree of recognition at national and international level.

Obtaining the habilitation certificate will be an opportunity to develop my professional and scientific career through research studies proposed within the doctoral works, on topics of general interest in paediatric hepatology. This research will moreover contribute to the development of National Registers on types of liver disease, succeeding in an assessment of epidemiological parameters in paediatrics.

The last part of the thesis is the bibliographic references that support the materials presented in the first three parts.