

HABILITATION THESIS

MIHAELA BALGRADEAN

SUMMARY

My habilitation thesis presents my personal experience in the field of MEDICINE, PEDIATRICS, as well as the main directions of future development in pediatrics and pediatric nephrology in Romania, from the perspective of ACADEMIC TEACHING (teaching and medical training), SCIENTIFIC RESEARCH and PROFESSIONAL, MEDICAL EXPERIENCE (medical hand-on experience), and also from the perspective of my academic and medical MANAGEMENT positions, since the obtention of the PhD diploma in 1997.

I. Academic, scientific and professional (medical) career

I contributed to 8 books in the pediatric field: I coordinated 3 pediatric treatises, I am the author of 2 monographs in the field of pediatric nephrology, the author of 14 chapters in treatises and other specialized books, and co-writer of one chapter in a pediatric treatise.

I am main author or unique author of 185 publications: 68 articles in ISI-IF-, CNCSIS B+ (BDI- and PubMed-indexed), CNCSIS B, and CNCSIS D-indexed medical journals. I have contributed summaries to ISSN/ISBN conference/congress proceedings, I have 15 citations in BDI-CNCSIS medical journals, I have had 54 invitations as lecturer in various medical scientific national and international meetings with CME accreditation, and have published 117 scientific papers and posters in conferences, symposiums, and medical congresses.

I was involved in 3 national and international projects (2 CEEX projects, one of them as project director). I also participated in the prestigious international project of research and medical training “American Baylor-Humana USA-Universities. Transforming Romanian Health Care”, which had as major partners the National Health Department, the National Department of Education, and prestigious Universities from the USA. I participated to 4 national and international clinical studies (2 international studies are currently underway).

I am coordinator in 2 National Education and Training projects (1.National Coordinator in the Program of Medical Training in Pediatrics and 2. National Coordinator in the Program of Medical Training in Pediatric Nephrology).

Since the obtention of the PhD medical diploma in 1997, my experience in academic research and teaching, medical practice, and management has covered four main phases. During this time, my academic and medical professional activities evolved in parallel. My medical activities as senior pediatrician have always been informed by the latest

scientific literature and information regarding medical practice, so as to achieve two main goals: a better care of the sick child and a modern and efficient training of students, residents, and young medical practitioners. My global approach of pediatric pathology builds on the concept of interdisciplinary diagnosis and therapeutic management in medicine.

1. October 2013 – present: **Professor of Pediatrics**, Carol Davila University of Medicine and Pharmacy
2. February 2007 – September 2013: **Associate Professor**, Carol Davila University of Medicine and Pharmacy
3. February 1999 – January 2007: **Lecturer**, Carol Davila University of Medicine and Pharmacy
4. February 1980 – January 1997: **Assistant**, Carol Davila University of Medicine and Pharmacy

1. As **Professor of Pediatrics** at Carol Davila University of Medicine and Pharmacy my responsibilities include teaching and medical training for students and residents. This activity involves the preparation of scientifically- and technologically-, pedagogically-updated courses, the establishment of an evaluation system based on theoretical information correlated with hospital hands-on-experience, the organization of clinical internships based on a better relationship/communication between doctors and between doctors and patients, the coordination and the training of residents in day-to-day clinical activities and teamwork, or the writing of conference papers in view of participation to symposiums and congresses. As coordinator and author I have published work in 3 pediatrics books/ treatises, I published articles and summaries in BDI- and IF-indexed journals, I presented papers and participated as lecturer in different scientific manifestations. In my quality as Vice-Dean of Carol Davila University of Medicine and Pharmacy, Bucharest, I was coordinator of the residency competitive exam 2013. As Head of the Pediatric Clinical Service of Marie S. Curie Emergency Clinical Children's Hospital, I coordinate the hospital's medical activity (see my CV and publications list).
2. My experience as **Associate Professor** (2007-2013) was marked by teaching activities. I taught fifth-year medical students and second- and third-year FMAM (Faculty of Midwifery and Nursing) students at Carol Davila University of Medicine and Pharmacy, and coordinated the training of residents in pediatrics, pediatric nephrology, general practice, neonatology, pediatric diabetes and infectious diseases. As National Coordinator in educational projects of medical training, I undertook the planning and modification of the curriculum of Pediatric Residency Training, the principal target being its adaptation to European Union Standards (3 years of pediatric common trunk and 2 years of thorough studies in different pediatric fields such as: cardiology, nephrology, rheumatology, pediatric diabetes, gastroenterology, etc). As National Coordinator I was responsible for the elaboration of the Pediatric Nephrology Curriculum, in view of the obtention of

the Certificate of Studies in Pediatric Nephrology. During this time, I coordinated a medical treatise in pediatrics and wrote my second monograph (*The Kidney in Child Pathology*), I published numerous articles in indexed scientific journals, and was invited to lecture at the Summer School of Pediatrics, to conferences and congresses, while finishing work on research projects (see my CV and publications list).

3. As **Lecturer** at Carol Davila University of Medicine and Pharmacy (1999-2007) I worked in the postgraduate field, as part of different projects of training for young and senior pediatricians, and general practitioners, all over the country. I was an active participant in the prestigious international project of research and medical training: “American Baylor-Humana USA Universities. Transforming Romanian Health Care”. In 2005, I published my first monograph, *Current Pathology in Pediatric Nephrology*. I wrote articles in medical journals (the majority as unique or main author) and presented numerous papers in different scientific meetings. Also, as author of all the related documents, I contributed to the set-up of the Pediatric Nephrology Department at Marie S. Curie Emergency Clinical Children's Hospital. In 1999 I obtained the title of Pediatric Nephrologist.
4. My years as **Assistant** at Carol Davila University of Medicine and Pharmacy (1997-1999) marked the beginning of my teaching activity and work with students and residents in pediatrics. During this time I published my first papers in medical journals and wrote my first treatise chapters in pediatrics and pediatric nephrology. After the obtention of the PhD diploma with the interdisciplinary thesis “Obstructive Malformative Uropathy in Children. Contribution to Diagnosis and Monitoring of Patients with Pyeloureteral and Vesicoureteral Anomalies”, I focused my professional academic and medical activity on pediatric nephrology, in close relation with related specialties of adult pathology.

II. Academic, scientific, medical, and managerial perspectives

To continue my clinical, teaching, publication and research activities.

At the beginning of 2014, Rosanna Coppo, Secretary General of the European Society of Pediatric Nephrology (ESPN), said: “Pediatric Nephrology is a rather small, but very important and highly specialized field. Several adult renal diseases have their origin in childhood and the prevention of renal function loss has to start immediately, from the first symptoms, as they appear in young age. The European Renal Association–European Dialysis and Transplant Association (ERA-EDTA) announces a non-exclusive collaboration with the European Society of Pediatric Nephrology (ESPN). Both societies focus on the care of patients with chronic kidney disease (CKD), promote clinical research in the field of nephrology and have similar interests in basic research”. ERA-EDTA emphasizes that “children with CKD are not little adults with CKD, and therapies cannot simply be extrapolated, instead, special treatments and care are needed for pediatric patients”. Pediatrics is a self-standing medical specialty which includes all corresponding specialties in the adult.

The doctoral research of future medical PhDs must start from this reality. My aim is that the research work and projects of future PhD candidates highlight the necessity of an interdisciplinary approach of pathologic interactions within the child's body, which acts on two extremely important and complex physiological processes: growth and development.

In the education and training of students and residents I propose to expand the understanding of the concept of "emergency" to mean "the urgency of correct diagnosis", i.e. the result of organized teamwork corroborating clinical data with information provided by laboratory and imaging results, so as to formulate and implement an appropriate therapeutic plan. I offer modern, interactive, continuously updated courses with information on the latest trends in pediatric pathology approach.

I aim to continue the training and promotion of hospital doctors, dependent of clinical activity. To this purpose, I will continue to run an established weekly tradition borrowed from my masters, of case and clinical studies presented by the residents of the clinic, under the supervision of medical instructors. These communications are related with the presentation of new pharmaceutical products, current therapies, diagnostic techniques, or new medical equipment. A selection of these works is regularly presented at meetings /appointments of the Romanian Society of Pediatrics and other scientific events (conferences, congresses, etc.).

I propose to continue work in research and publishing. As a member of the European Association of Pediatrics (EPA-UNESPA), the European Association of Nephrology-dialysis (ERA-EDTA), the International Society of Pediatric Nephrology (IPNA), and as member of two BDI medical journal editorial boards, I intend to organize research teams and to promote the collaboration with pediatric specialists from other universities and clinics, and with researchers in the basic sciences, laboratory and imaging (e.g. physiology, immunology, pathology, embryology, genetics, etc.). This work is already under way as can be seen from my recent BDI and ISI publications.

I uphold the pediatricians' participation in various scientific events organized by fellow specialists in adult medicine (the UMF Carol Davila Congress is a first and very important step in this direction). This joint research and exchange will ease the transition, often very difficult, from child to adult pathology, especially in pediatric chronic diseases. The goal here is, of course, to better and render child-patient care more efficient.

I intend to support the development of the pediatric fields with tradition at M.S. Curie Emergency Children's Hospital: Neonatology, Cardiology, Diabetes, Nephrology, Oncology, Paedumology, Allergology, Gastroenterology, Rheumatology. The current revision of the Pediatrics Residency Curriculum will allow us to offer thorough training and create

pediatric specialists in different fields (grafted on a solid base of general pediatrics consolidated over 3 years).

I will endeavor to successfully fulfill my projects as Head of the Pediatrics Clinic and of the Pediatric Nephrology Department at M.S. Curie Emergency Children's Hospital. I intend to improve the quality of care, by improving the relationships between hospital doctors and general practitioners, between doctor and patient.

I will continue to fulfill my responsibilities as Vice-Dean in charge with coordinating the curriculum of the clinical years (III-VI) and other activities related to improving curricula, admissions, research, the residency program, undergraduate and graduate studies (as member of the Masters Commission, the ERASMUS Commission, and of the Committee for the membership of UMF Carol Davila University to the Association of Francophone Universities).

III. Images List

IV. References