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

PEDIATRIC NEUROLOGY

PAST AND FUTURE – INTERDISCIPLINARY CONCEPTS

HABILITATION THESIS ABSTRAT

CANDIDATE:

Prof. Univ. Dr. CRAIU DANA-CRISTINA

„Carol Davila" University of Medicine and Pharmacy Bucharest

YEAR 2022

1. SCIENTIFIC ACTIVITY

1.1. DOCTORAL STUDIES were started in 2001 during my specialization in Epileptology, Electroencephalography and Epilepsy Surgery in the Netherlands and were completed in 2004 when I defended my thesis **The Role of video- EEG in Frontal epilepsies in childhood**. Multiple publications resulted, the development of the first video-EEG laboratory in Romania in our Clinic and beginning of the pre-surgical evaluation in children.

1.2. Clinical studies. I was involved in conducting clinical trials in the field of epilepsy (11 studies), migraine (2 studies), tuberous sclerosis (1 study), multiple sclerosis (2 studies), neuro-endocrine diseases (1 study), cerebral palsy (3 studies), ADHD (1 study), as a sub-investigator, or principal investigator. They demonstrated the cohesion and strength of the team I am part of for performing several clinical trials in parallel, for all pediatric neurological pathologies and were a key factor for our clinic in obtaining the title of Pediatric Neurological Rare Disease Expertise Center in 2016- 2017 (EN / RO), which I coordinatec, member of two European Networks of Reference Centers (ERNs) - Epi CARE (European Network for Rare Epilepsies) and ENDO-ERN (European Network of Endocrine Diseases).

1.3. Research Grants. I have been a sub-investigator or principal investigator in 21 national or international research grants, listed in full in the CV and in the List of papers. Some examples are summarized below.

- 2009 - 2011, project director INFO ACT, “Computerization of administrative activity within the research department of the Clinical Hospital Prof. Dr. Al. Obregia” (European POSCCE funds), created a basis for further research.
- 2011-2014 - project director 6-EUROC / 06.06.2011, Phenotype-genotype correlations in rare epilepsy syndromes in Romania (European funds, individual project partner in the European consortium EuroEPINOMICS –RES) led to the identification of new epilepsy genes applying molecular genetics techniques in Cohorts of European Patients with Epilepsy (N-8000). More than 30 genes involved in epilepsy have been discovered/ re-analyzed, and articles in which I and other colleagues are co-authors have been published (listed in the CV).
- 2013 - 2016. Our center was part of the E-PILEPSY consortia (Project type FP7/ European Commission- Health Program 2/ reference No. 534055/ 2013-2016. CEC 2013: Reference center for epilepsy surgery in children) and EpiCARE (European Network for Rare Epilepsy), in which the Obregia Center for Expertise in Rare Diseases entered in 2016 as a full member. The E-PILEPSY project and the EpiCARE Network evaluated current clinical practices in epilepsy management and issued a number of

recommendations for a homogenous approach, including safety measures, testing of patients during and after the seizure, development of epilepsy protocols.

- Project CEEX / 2005-2008, Integration of molecular analysis techniques in the diagnosis of dystrophinopathies in the perspective of therapeutic and prophylactic strategies, correlated the phenotype and genotype and was the basis for the development of the National Program of the Ministry of Health for Early Diagnosis by genetic analysis of DMD and AMS patients developed in 2009 and the initiation of DMD and AMS registries.
- collaboration in the French project IBISD / GEE006.10 / No.011093-23MAR-00-2012-2014, Search of biomarkers for diagnosis, monitoring of disease and therapeutic response in Duchenne's muscular dystrophy, evaluated antibody profiles for various viral vectors in patients and healthy population, aiming the development of gene therapy.

1.4.Results of scientific and research activity

1.4.1. Articols. I have published 12 ISI articles as principal author (PA), 72 ISI articles as co-author (CA), and 11 articles in BDI journals (international databases). Their list can be found in the CV and in the list of works. The 106 publications in which I was AP or CA generated a number of 1726 citations and a Hirsch index 21.

1.4.2. Books. I was first author for 4 books and co-author of one book: (found in the CV). I emphasize Craiu D, Iliescu C. "PEDIATRIC NEUROLOGY - Course notes", "Carol Davila" University Publishing House, Bucharest, 2013 for students and residents.

1.4.3. Member of scientific-professional bodies. I am a member of over 10 scientific and professional or charitable associations related to my profession in the areas - pediatric neurology, neurological genetics, epilepsy, electroencephalography, neurocutaneous diseases, inflammatory-immune diseases of the CNS.

1.4.4. Reviewer for professional journals. I am reviewer for numerous Journals in my fied of activity (European Journal of Paediatric Neurology, Seizure, Neuropediatrics, Epilepsia, Epileptic Disorders, Journal of Pediatric Neurology, Maedica).

1.4.5. Editorial Board Member. I am a member of the European Journal of Paediatric Neurology (EJPN) Editorial Board, (https://www.ejpn-journal.com/content/edboard). I am invited Editor of the Special Issue "Vaccination in Paediatric Neurology" of EJPN (2021).

2.ACADEMIC ACTIVITY

2.1. Academic development (21 years) started in 2000 as Assistant Professor in the Pediatric Neurology Discipline II (Al. Obregia Hospital), Department 6 of Clinical Neuroscience, Faculty of Medicine of Carol Davila University of Medicine and Pharmacy, where I successively went through all academic positions - Lecturer (2005), Associate

Professor (2007), Professor (2014). In 2020 I was voted a member of the University Council, member of the University Senate and I received the honorable proposal to be part of the Dean's team as Vice Dean for Research. My main activities are courses for students, residents and doctors (postgraduate courses), guiding students and residents to the bachelor's theses (coordinator for 51 papers and mentor for 20) and to the scientific communication sessions (SOMS, Medicalis, IMSSB). I am a trainer at international courses (since 2014 Virepa Trainer for Basic EEG course and since 2018 for Pediatric EEG).

2.2. Organization of training courses, summer schools, national and international conferences. I am the initiator of the Epilepsy Summer School of the Romanian Society Against Epilepsy and the initiator and Director of the: East European Course of Epilepsy financed by ILAE-Europe (since 2014 there have been 4 editions). I have been coordinating the Romanian Society Against Epilepsy Conference since 2015. In the period 2009-2011 we organized in Romania 6 Courses of the European Society of Pediatric Neurology (EPNS).

2.3. I am the **National coordinator for Pediatric Neurology Residency**. In 2021 I initiated Journal Club of the Obregia Pediatric Neurology Clinic (https://bolirare-obregia.ro/journal-club/) opened to colleagues all over the country. In 2004, I translated and adapted the European Curriculum for Training in Pediatric Neurology in Romania. Between 2009 and 2017, as President of the TAB (Training Advisory Board) of EPNS, I participated in the evaluation of NP training in different countries, aiming the harmonization of PN curriculum of these countries to the European one.

2.4. I participated **in exams for entering medical school, batchelor, promotion, PhD commissions, or Commissions for the examination for obtaining the title of specialist or senior pediatric neurologist** or for other specialties - Neurology, Child and aAdolescent Psychiatry, Pediatrics.

2.5. Administrative and managerial activities. I was the head of the Pediatric Neurology Department at Al. Obregia (2008 - 2016). Since 2016 I have been the Coordinator of the Pediatric Neurological Rare Disease Expertise Center of the Alexandru Obregia Clinical Hospital, a member of two European Rare Disease Networks (ERNs): EpiCARE (European Network for Rare and Difficult to Treat Epilepsies) and ENDO-ERN (European Network of Rare Endocrine Diseases).

3. MEDICAL ACTIVITATY

3.1. Pediatric Neurology training and career as a doctor. I graduated Carol Davila University of Medicine of Bucharest in 1993 and the Pediatric Neurology residency in 1999 under the coordination of Professor Sanda Măgureanu, a true mentor from whom I "stole"

the passion for reading, learning, research, for making the Romanian school known, to put Romania on the map of the pediatric neurological world. In 2004 I became a Senior in Pediatric Neurology. In 2007 I graduated Pediatrics Specialty.

3.2. Activity in commissions of the Ministry of Health (Consultative Commission on Pediatric Neurology of the Ministry of Health). Between 1994-2008 I was secretary of the Joint Commission of Neurology and Psychiatry of Child and Adolescent, member of the commission of Neurology and Pediatric Neurology chaired by Prof. Bajenaru until 2017. From 2016 until now I lead the NP Commission of MS.

4. FUTURE PLANS

The principles that guide me in my clinical, didactic and research activity are those of teamwork, of the multidisciplinary approach of the cases of Pediatric Neurology (NP), of establishing partnerships with neuropediatric clinics or related to pediatric neurology in the country and abroad, the principle of quality and continuous improvement, in order to integrate education, research and medical care in the field of NP in the Romanian and European space.

In the future, I intend to continue the efforts for the development of NP as a discipline and as a specialty, in line with the European training standards in Pediatric Neurology.

I will continue to involve NP Obregia's staff in clinical trials to make it possible for our patients to receive new and innovative treatments.

I intend to involve the Obregia Center in the research activities initiated by the European Network of Reference Centers for Rare Epilepsy and Rare Neuroendocrine Disorders.

My main area of interest in research remains the field of epilepsy and epilepsy surgery, the study of somatic mutations in the brain, genetic testing performed on brain fragments obtained by epilepsy surgery to identify biomarkers that will guide personalized therapy. Another direction of research is the genetics of rare diseases - finding and publishing new mutations in rare diseases accompanied by the initiation of protocols for investigation, follow-up and treatment for each of the rare diseases studied.

Following the habilitation qualification, I propose to coordinate research projects with the help of PhD students in the NP specialty.

I intend to publish articles in scientific journals with a high impact factor, in Open access format to increase visibility. I will continue to participate in national and international scientific events with oral papers and posters with colleagues in the clinic.