

FROM SLEEP DISORDERS TO COCHLEAR IMPLANTS – THE WAY TO EXCELLENCE IN IMPROVING QUALITY OF LIFE

SUMMARY

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My habilitation thesis highlights the main aspects of my scientific, professional and academic activity, which I have carried out since 1989, when I started my medical activity, after graduating from the Faculty of Medicine, General Medicine Department and obtaining the title of doctor by order of the Ministry of Health.

In 1992, I started my specialist studies in otorhinolaryngology and in 1994, I took the specialist examination. Following the examination, I became a specialist ENT doctor. Subsequently, I obtained the certificate of conformity, which I have made European equivalent, as well as that of doctor.

In 2001 I defended my doctoral thesis entitled *Etiopathogenic and anatomopathological factors causing malignancy of chronic laryngitis* Scientific supervisor: Prof. Dr. Constantin Drașoveanu. The thesis was publicly defended on 06.04.2001. The title of Doctor of Medicine was confirmed by M.E.C.I. order no. 4911 of 02.11.2001.

In 2002 I went on a KAAD research fellowship to Germany, to the university clinic in Ulm, where for one year, between 2002-2003, I completed internships in the fields of phoniatrics and pediatric audiology, Sleep medicine, ENT endoscopic surgery and ear surgery... This was the year of professional turning point, with many scientific achievements. Together with the Ulm clinic team we published our first papers in journals listed in the web of science: HNO and Laryngo-Rhino-Otology. Consider the work: *Variabilität klinischer Befunde bei Patienten mit Schlafbezogenen Atmungsstörungen in Abhängigkeit vom Untersucher*, or *Examiner variability of clinical findings in Patients with Sleep Related Breathing Disorders*, or *Der ASA-Score als Komorbiditätsindex bei Mundhöhlen-und Mundrachenkarzinomen* or *Schlafanamnesebögen und klinische Befunderhebung im Rahmen der Stufendiagnostik-Sleep related breathing disorders. Sleep anamnesis questionnaire and determination of clinical results within the framework of staged diagnostics* or *Kritische Analyse von Komplikationen und Wundheilungsstörungen nach Tracheotomie im Kindesalter-Critical analysis of complications and disorders in wound healing after tracheostomy in children*, as reference works for the beginnings of my scientific career.

Another important moment of my career was my professional and scientific contribution to the development of GALENUS MEDICAL CENTER, opened in 2006, where later together with the University of Medicine and Pharmacy Targu Mures, I organized the first postgraduate courses in a new field, namely **SLEEP DISORDERS**.

My professional, teaching and research activities were carried out at the University of Medicine and Pharmacy in Tîrgu Mureș, since 2010 as an associate professor and since 2012 as Head of the ENT Department of M3 Surgery. This activity has continued until now, being extended to the Faculty of English in the M2 department.

Scientific achievements:

The PhD work focused on what precancerous conditions are and the possibilities of malignant transformation of chronic laryngitis. The PhD thesis was based on studies on patients with chronic laryngeal inflammatory pathology, by studying precancerous states. It is generally accepted that 50-60% of cancers in the ENT are laryngeal and hypopharyngeal.

The focus of my work from 2003 to the present has been primarily on the study of **sleep disorders**, and then extended to another new field, that of **cochlear implantation**. Between these two main areas of my professional and scientific activity, other subfields of the ENT specialty such as **rhinosinusal, nasal tumor and nasosinusal pathology, middle ear pathology and ENT pathology in children** have been intertwined.

In this context I have developed and contributed to 21 articles published in ISI journals with impact factor between 0.33 and 4.9, 10 as lead author of which 5 first author and 11 co-author, 4 ISI articles in journals without impact factor, published in proceedings of national and international scientific events. My papers have been cited in international databases, which made the Hirsh index reach 6, having more than 50 citations.

In the habilitation thesis I have presented extensively the results of studies conducted and published, emphasizing the role of clinical investigations in the development of different types of articles, original research, case report or review. I also presented my contribution in the field of respiratory sleep pathology in the elaboration of a chapter published in collective volumes.

The main journals in which I have published and which are included in the bibliography of the habilitation thesis are: ***Romanian Journal of Morphology and Embryology, Experimental and Therapeutic medicine, Revista de cercetare si interventie social, Medicina, Journal of clinical Medicine, HNO, Laryngo-Rhino-Otologie, Revista de chimie , Orvosi- Hetilap***

Throughout my professional and scientific career I have published 36 articles in BDI and B+ journals as well as in B or unlisted journals, these publications spanning a period from 1996 to 2022. Some of these journals are: ***Romanian Journal of Rhinology, Journal of Interdisciplinary Medicine, The Medical Surgical Journal, Soc of Phisicians and naturalists Iași, Journal Of Otology& Rhinology, International Journal of Stomatology and occlusion medicine.***

I have participated in a number of national and international scientific events, presenting papers whose abstracts have appeared in the volumes of the events with ISBN and/or ISSN as follows: 5 articles in the form of abstracts in European Archives of Oto-Rhino- Laryngology and Head & Neck , Rhinology ISI listed journals; 70 articles as first author and 32 articles as co-author and main author published in volumes with ISBN and/or ISSN of national and international scientific events,; more than 100 articles published in the form of abstracts in volumes without ISBN or ISSN of national and international scientific events, being invited lecturer or having oral presentations or poster presentations.

I have so far written 3 books, as a single author and I am co-author of a book with the pneumology clinical team, and I have the pleasure of writing a chapter on sleep disorders.

My research activity has been gained over the years also by contributing to the development and implementation of projects carried out within the university. In this context, I have been a member of 3 research projects. I have submitted as project director, 3 eligible but unfunded projects.

The experience gained allowed me to apply and win a project POC-A.I-A1.1.1.-A-2015 submitted to the GALENUS MEDICAL CENTRE.

In 2021 I submitted, as project director, a privately funded research grant and in 2022 I won, as project director, an internal research grant of 20.000 Eu. On the basis of the two won grants I published articles in journals listed in the web of science and in Scopus and Copernicus databases, both as first author and co-author and I also participated in international congresses where I communicated the results of the studies conducted, elements presented in the thesis.

I have described in detail in my habilitation thesis my professional results which I will briefly include in this summary.

Professional achievements:

- I graduated from the Faculty of Medicine, Department of General Medicine in 1989, and have subsequently gone through the stages of an academic and medical career.
- I have gone through the steps of professional promotion in the field of otorhinolaryngology, as a secondary doctor (resident) 1992-1994, specialist doctor 1994-1998, primary ENT doctor 1998-present
- I have obtained the certificate of conformity of ENT doctor and ENT specialist with European equivalence in 2014 and 2015
- I have obtained the certificate of complementary studies in ENT endoscopic surgery, ENT laser and Sleep Medicine level I and II in 2011, 2012 and 2019 respectively.

- I have participated in professional training courses since 1992 and until now - ear surgery courses, middle ear endoscopy course, ENT endoscopic surgery course, cochlear implant courses - these are just a few examples
- I did a research fellowship in Germany in 2002-2003
- I obtained the certificate of language proficiency in 2011
- I obtained the certificate of training in psycho-pedagogy in 2008
- I have obtained the certificate of graduation of the health services management course in 2016
- I organized postgraduate training courses in 2007 and 2008 at the Galenus Medical Centre under the auspices of the university.
- In 2015 I organized the IIIrd Congress of the Romanian Society of Rhinology
- I was president of the Romanian Society of Rhinology from 2015 to 2019
- I am the Romanian representative in the Board of the European Society of Rhinology, the Romanian representative in the scientific board of the CE-ORL&HNS conferences.
- I am a member of the Romanian Society of Rhinology, Romanian Society of ENT, European Society of Rhinology, European Academy of ENT, Pan American Society of Pediatric ENT
- I have been a member of the committees for specialist examinations and for the filling of posts both at the Ministry of Health and the Ministry of Education.
- I was vice-chair of the ENT Commission of the Ministry of Health and I am currently a member of the same commission.
- In the course of my habilitation thesis, I also presented my achievements in the academic field.

Academic achievements:

In 2010 I became associate head of the ENT Department in the Department M3 Surgery, then in 2012 I became head of the same discipline for the Romanian and English teaching line. Thus, I have been titular of course and practical works for General Medical Assisting, General Medicine year V Romanian and English, Dental Medicine year IV Romanian and English. I have been a course and practical work holder for the Master of Cosmetology. In the year 2022 I took and passed the exam for the title of lecturer, and I am currently a lecturer in ENT discipline, maintaining my teaching activity for year V general medicine and year IV dental medicine both in Romanian and English.

Within the academic activity I have led the research activity of the students in order to prepare their undergraduate works, I have organized and supported as lecturer postgraduate courses of continuous medical training as well as participation in student congresses with oral presentations and workshops.

For general medical students I wrote the course and the practical work tutor in Romanian and English, following the new concept of the university on multiculturalism and unity between teaching lines.

I am a member of the departmental board of the M2 department in the Faculty of English.

My future development plans are based on my concept of the habilitation thesis and what it means to me. From my point of view habilitation is the culmination of an activity and the beginning of a new period of academic and scientific development. It is an important moment in life. It is the moment when you can ask yourself a series of questions such as: have you done enough so farcan you train others...do you need to continue training or not???

That is why, for me, clinical work at the bedside, focusing on the patient's suffering, trying to do everything I can to alleviate it, is the main concern. Clinical research, combined with clinical activity, is the basis of all my work. For me as an ENT doctor, this is easier done than explained. Otorhinolaryngology is a surgical specialty, and everything surgical is precise, based on clear, complex, and uninterpretable things. I don't set the rules, but adapt to already existing rules, called diagnostic and treatment protocols, which I follow in my medical decisions. As an ENT researcher, I want to expand our knowledge, try to find new explanations for certain pathophysiological mechanisms, and explain changes in surgical techniques in relation to modern techniques. As an academic otolaryngologist, I don't set rules, I try to share my knowledge with others, to be an opinion-former, to leave what I have accumulated over the years behind me to the doctors and students.

I have dreams - I want to achieve them as soon as my health allows me. I am a woman, a mother, a doctor and a teacher.... what more can I do???? how to show the world that a woman's hard work, perseverance, tenacity, and honesty can create value.

For the future I propose:

- In the year 2023, on a professional level, I will continue my medical activity by studying and applying modern methods of treatment to patients with sleep apnea, by extending modern surgical techniques.
- I will extend polysomnographic investigations to patients with sleep pathology, by taking an interdisciplinary approach to this pathology and by involving young resident doctors in performing and interpreting polysomnography.
- In the clinical field of cochlear implantation, I will extend surgical procedures to patients with cochlear malformations, difficult surgical procedures
- My continuing education in the field of otology will continue, in 2023 by attending the training course for the skull base surgical approach.
- In the year 2023 I will also work on the completion of some open research topics through the applied internal grant
- My teaching activity in 2023 will focus on training young residents and students.
- Scientifically, I will continue to collaborate with colleagues, students, master's and doctoral students in the field of sleep pathology and cochlear implantation and will continue to disseminate the results obtained in valuable, highly rated journals.
- I will support interdisciplinary research collaboration and inter-university collaboration, as well as the expansion of international cooperation through research programs and projects and the development of best practice guidelines in the field of sleep pathology and hearing rehabilitation.
- I will contribute to increasing the national and international recognition of the University of which I am a member, as a teacher, increasing its reputation both academically and scientifically.
- I will continue to coordinate undergraduate theses and expand my work by coordinating dissertations.
- For the year 2023, a year of great professional, academic and scientific activity, I wish to publish 2 books: Sleep Pathology for Otolaryngologists and Otorhinolaryngology for Residents, and I will continue with the chapter in the Treatise on Otolaryngology, related to Sleep Disorders, of which I am the main author.
- The year 2023 and beyond will be the start of a new challenge - ONCOLOGY. Increasing the capacity of oncology centers to implement protocols for screening, diagnosis and treatment of tumor diseases in the field of otolaryngology, will lead me to actively participate in the implementation of a research project in this field and the creation of a new private research base in association with national and international academic medical centers.
- I would like to have a PhD student who is determined to work actively in research, but who is also involved in teaching. I would like to be able to actively coordinate him, to be his scientific and academic supervisor.

Long-term plans - to be able to form a team, to work in a modern clinic, equipped with high performance equipment, to stay close to my students and residents, as a friend and teacher, to apply for scientific projects and to get enough funds to be able to develop the specialty I am so close to, and which has marked my wh