

UNIVERSITATEA DE MEDICINĂ ȘI FARMACIE
„CAROL DAVILA” BUCUREȘTI
ȘCOALA DOCTORALĂ
DOMENIUL MEDICINĂ

TEZĂ DE ABILITARE

CANDIDAT:

Prof. Univ. Dr. Adrian Miron; Facultatea de Medicină
UMF „Carol Davila” București

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**EVOLUȚIA CHIRURGIEI GENERALE ÎN EPOCA
TEHNOLOGIZĂRII AVANSATE**

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The present habilitation thesis entitled "Evolution of general surgery in the era of advanced technology" presents the activity of the candidate, Professor Adrian Miron, PhD, on the three areas of interest - scientific, academic and teaching, with the main achievements in terms of career and future development plans.

The introduction covers the general aspects of the candidate's biography, as well as his vision of current medical education (at undergraduate, residency training, as well as doctoral studies), and how it needs to adapt to the new international benchmarks, the era of evidence-based medicine and the free flow of information.

Chapter III details the professional activity and achievements, starting from the professional path and the first traineeships in general surgery at the Colentina Hospital in Bucharest. This was followed by two major opportunities in terms of surgical training through internships in Belgium and France. These represented the opening of paths for further development on all levels, through early exposure to two medical systems where multidisciplinary approach to patients, as well as the beginnings of minimally invasive surgery, novelties in patient management such as interventional radiology, ultrasound therapy, endovascular surgery, elements that at the time did not exist, or were still in the proposal stage in Romania. Another defining and decisive element for the subsequent course was the participation in endocrine surgery, where the approach was different not only from a theoretical but also from a technical point of view. The activity as Head of the General Surgery Department of Elias Hospital, since 1998, as well as the acquisition of the status of University Clinic in 2009 and the transformation of the Hospital into an Emergency Unit have contributed decisively to the formation of a young and enthusiastic team of good professional quality. The basis of my managerial concept has been to increase and constantly update the quality of medical care through continuous training and improvement, the aim being to successfully deal with all cases of general surgery, with emphasis on laparoscopy. In order to complete the range of services, I have developed in the clinic the practice of procedures related to surgical pathology, borrowed from other specialties, such as ERCP, upper digestive endoscopies, colonoscopies, recto-sigmoidoscopies or intraoperative ultrasound. I have also participated as a member of examination boards for the title of specialist or primary General Surgery since my residency. As elements of recognition of my professional activity, I mention my membership in the Romanian Society of Surgery (where I worked as secretary of the Bucharest branch, then as vice-president of the Society), as well as my active involvement in the editorial activity of the Chirurgia magazine. I am also a member of the Association Francaise de Chirurgie (AFC),

the Romanian Society of Emergency and Trauma Surgery (SRCUT), the Romanian Society of Laparoscopic Surgery (ARCE) and the European Society of Endoscopic Surgery (EAES). Since 2020 I am Associated Editor for the Journal of the Romanian Society of Endocrinology, *Acta Endocrinologica*, ISI Web of Science indexed journal. As an important element of professional recognition, I have become a reviewer for several journals indexed by ISI Web Of Science or Emerging Sources Citation Index, including Surgery (ESCI), *Acta Endocrinologica* (IF 0.877), *Journal of Pharmaceutical Research International* (ESCI), *Microorganisms* (IF 4.128), *Cancers* (IF 6.639), *Medicine* (IF 2.430) or *British Journal of Surgery* (IF 6.939).

Chapter IV deals with academic activity and academic achievements, with emphasis on the period after 2000, given that in 2009, under the leadership as Rector of Prof. Florian Popa, the University of Medicine and Pharmacy of Bucharest, with the support and at the request of the late Prof. Șerban Marinescu, Director of the Hospital, established the Elias Surgery Clinic, putting out to competition a position of Junior Professor and one of Lecturer. I filled the position of Junior Professor, thus becoming the first Head of the Surgical Clinic in this hospital. In 2015, I was promoted and obtained the post of Professor by competitive examination. At the same time, the quasi-complete scheme of our university staff was set up, which currently has a pyramidal structure with three assistant professor positions, two filled and the third put out to tender, two heads of works and a lecturer. As Head of Discipline, I represent the clinic in Department 10 Surgery, as well as in the Council of the Faculty of General Medicine Carol Davila. Together with the team of Department 10 Surgery of UMF "Carol Davila" Bucharest, I have participated in the elaboration of several didactic materials addressed to both students and resident doctors in training in the specialty of General Surgery and not only. I have participated as a member and later as head of committee in many licensing and academic examinations.

Chapter V details the scientific work and achievements from the time of my PhD thesis entitled "Iatrogenic lesions of the main bile duct" in 1997 to the present. I have presented the results of the research activity in several sub-chapters, depending on the area of interest addressed. A first sub-chapter deals with hepato-biliary-pancreatic surgery, as a continuation of the interest in this field demonstrated during my doctoral studies. This research direction has resulted in the publication of numerous case presentations, studies and papers, both in national and international journals, indexed by BDI or ISI, the most recent of which is a systematic review and meta-analysis of laparoscopic cholecystectomies in patients with complete situs inversus (*Diagnostics*, IF 3.7, May 2022). In the same area, I have written together with clinical collaborators a chapter in the *Treatise on hepato-bilio-pancreatic surgery and liver*

transplantation in 2016. Endocrine surgery has been another permanent concern of study and research, which has resulted in the publication of abstracts, case presentations and studies, many published in collaboration with the Endocrinology Clinic staff of Elias Hospital, dealing with benign and malignant pathology of the thyroid, parathyroid and adrenal glands, as well as neuroendocrine tumors. The most recent article published in this field aimed to analyze preoperative inflammatory markers and platelet indices in patients with papillary thyroid cancer (Diagnostics, IF 3.7, November 2021). Through the lens of working in an emergency hospital, but also with the benefit of close collaboration with the Oncology and Gastroenterology Clinics, we have also addressed colorectal pathology and published a significant number of studies and papers, most recently evaluating the quality of oncological resection in laparoscopically operated patients versus those who underwent open surgery (Experimental and Therapeutic Medicine, IF 2.4, 2022). We have participated in international multicenter studies under the auspices of the ESCP (European Society of Coloproctology), and the CovidSurg Collaborative, resulting in nine papers. I have coordinated or been a member of the research team of several national and international grants and trials with various areas of study. Last but not least, I have published as author/co-coordinator 3 books, and 16 as co-author. At the time of this thesis, the Hirsch index according to Web of Science is 6, with a total number of 90 citations in 72 articles, and in Google Scholar h-index is 11, and the number of citations is 497.

Chapter VI details plans for academic and scientific career development. The multilateral development of surgical techniques, and their accessibility as globalisation, the unrestricted circulation of information and digitisation, make the training of a surgeon, at least in theory, very easy and fast. We have sought to stimulate this, knowing the capacity of young people to assimilate technological novelties more quickly, with the proviso that an academic filter is put in place to prevent information intoxication. Clearly, if we take on this task of weighing and selecting the information flow, we must also keep up with it. In other words, to be aware that the process of lifelong learning includes us. An ideal way of orienting our attitude towards The best way of guiding our attitude towards the multitude of information is to encourage students and residents to participate in as many scientific events as possible by involving them in the editorial teams of the various papers, which has recently been facilitated by online conferences, webinars, courses and virtual lectures. The field of scientific research must, in my view, encompass a number of elements that must be addressed in parallel to ensure a fair, ethical, well-argued and evidence-based approach and results that contribute to better medical practice.

The importance of public confidence in scientific findings and trust in scientists cannot be overstated. Thus, it becomes essential for the scientific community to focus on improving the strategies used to educate future scientists on the ethics of research behaviour. The main areas of our own research that we have addressed as a desideratum for the future are colorectal surgery and endocrine surgery, given the rapid progress of new technology elements that facilitate diagnostic and therapeutic approaches, but also the obligation of inter-disciplinarity. Among these, I mention, in addition to robotic surgery (for both areas), auto-fluorescence, indocyanine fluorescence imaging, continuous nerve activity monitoring, venous sampling, as well as molecular markers and the increasing role of medical genetics in these pathologies.

I believe that the objectives formulated in this thesis represent important elements for the general surgery of the present, not only of the future, and I believe that the experience, scientific maturity, didactic enthusiasm and professional activity carried out so far represent solid arguments for ensuring success in collaboration with the next generations of young surgeons interested in research and in belonging to a traditional team such as the teaching staff of the University of Medicine and Pharmacy "Carol Davila" Bucharest.