



**UNIVERSITY OF MEDICINE AND PHARMACY
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MEDICINE**

**QUALITY, INNOVATION AND PERFORMANCE IN THE
MULTIMODAL APPROACH OF THE PATIENT WITH
GASTROINTESTINAL PATHOLOGY
HABILITATION THESIS SUMMARY**

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The habilitation thesis is structured in two parts (chapters), preceded by a brief introduction and succeeded by the final remarks (conclusions). The first part of the Habilitation Thesis covers, in the first subchapter, a summary of the professional (medical), didactic and scientific (research) achievements subsequent to the defence of the Doctoral Thesis. In the preamble of this first chapter, I considered it important to introduce some personal biographical milestones in order to demonstrate the continuity of my career. The second subchapter comprises an argumentative approach to the originality, relevance, and coherence of my professional, didactic, and research contributions to various areas of scientific interest. Therefore, I identified three main areas of scientific interest based on which I structured the analytical argumentation of my professional activity, which was constantly documented, since defending the Doctoral Thesis. Each direction of scientific interest will be approached according to an editorial model represented by:

- The background of the scientific context;
- Scientific achievements in the field;
- Professional, didactic and research involvement in the achieved results;
- The impact and visibility of the results.

A review of the main milestones in my professional and academic development makes it possible to observe that digestive endoscopy has been the pivotal area of interest in my career. The materialization of personal interest in digestive endoscopy was achieved in the area of scientific research through contributions aimed at emphasizing the continuous need for complexity, quality, and innovation in the implementation of diagnostic and therapeutic digestive endoscopy techniques.

There may be distinguished two research directions: on one hand, the direction of quality assurance in training, continuing education, and practice of digestive endoscopy, and on the other hand, the one of constant innovation and extension of practical diagnostic and therapeutic applications. The common ground is the work put into the development of young teams and ensuring the necessary logistics for the implementation of the research directions.

- ***Complexity, quality and innovation in implementing the diagnostic and interventional digestive endoscopy techniques***

A. The background of the scientific context

The activity in an emergency hospital has to ensure the best standard of practice in making an early diagnosis and in the priority management of numerous injuries both in the digestive tract and in the field of biliopancreatic pathology - an aspect that requires high levels

of competence and quality in digestive endoscopy. From this concept derive four main pillars that underpin the activity in such a tertiary centre with concerns in digestive endoscopy:

- ensuring a correct endoscopic evaluation - correct, complete and early diagnosis;
- ensuring an effective risk/benefit ratio in implementing the principles of medical, endoscopic and/or surgical management of detected lesions;
- ensuring the technical, logistical conditions and the support of the emergency management teams, respectively anaesthesia and intensive care management in a prompt and coherent manner;
- ensuring continuous medical education and advanced training in digestive endoscopy for the personnel involved in the clinical activity.

B. Scientific achievements in the field

The useful methods for assuring quality in training, continuing education and the practice of diagnostic and therapeutic digestive endoscopy.

The model that I offered to those with whom I collaborated on professional and research activities was always that of a practical orientation on clinical case concepts - with an emphasis on quasi-exhaustive documentation and multimedia support. Thus, we pursued the reproducibility, traceability and certification of the quality of medical care provided to each case. Therefore, the research direction specific to the quality standards in training, continuing medical education and practice related to digestive endoscopy was supported by a series of published clinical cases - research resources.

Innovative resources and expanding practical applications in diagnostic and therapeutic endoscopy.

The results of the research direction highlight the coherence in the local endoscopic practice. The two research directions address in a joint and complementary manner the issue of technological innovation in digestive endoscopy and the continuous improvement to which the endoscopist must aspire in order to prove procedural quality and safety.

C. Professional, didactic and research involvement in the achieved results

The results obtained within this direction of research eloquently attest to the role that the clinician gastroenterologist can have, once involved in the academic activity of teaching, professional training on one hand, and research on the other hand. The research activity in digestive endoscopy brought to our team not only the opportunity to continuously expand

personal endoscopic technical skills but especially positioning the Bucharest University Centre among top European gastroenterology and digestive endoscopy centres.

D. Impact and visibility of the results

The research direction encompassing the “Complexity, quality and innovation implementing the practice of diagnostic and interventional digestive endoscopy techniques” is represented by the results presented in eight articles in which I participated as the main author; the scientific articles all have a common ground – the adherence to quality standards in digestive endoscopy within current local practices. Through continuous innovation, the gastroenterology and digestive endoscopy team from the Bucharest Emergency Clinical Hospital have contributed to the flow of specialized literature mainly with the example of practical cases managed and solved at the level of a tertiary centre. In the aforementioned clinical cases, the involvement of the interventional gastroenterologist with concerns in research shows both the contribution to the decrease of invasiveness through technological innovation and endoscopic practical skills and the adherence to the current therapeutic principles in which digestive endoscopy gained success.

- ***Applications of advanced digestive endoscopy in biliopancreatic pathology***

A. The background of the scientific context

Nowadays, the biliopancreatic pathology represents one of the fields of professional interest associated with clinical and interventional gastroenterology. Even if in the hepatology or functional digestive pathology fields the practice of the clinical gastroenterologist has yielded different clinical and therapeutic competencies to other specialities such as internal medicine or general medicine, biliopancreatic pathology remains an important focal point in advanced gastroenterology practice. The multidisciplinary team gravitates around the gastroenterologist and the digestive endoscopist, the biliopancreatic surgeon, the diagnostic or interventional radiologist and possibly the anatomopathologist, thus all of them being indispensable coplayers for an advanced management.

The clinical activity within the Department of Gastroenterology of the Bucharest Emergency Clinical Hospital has been focusing on biliopancreatic endoscopy, thus establishing a clinical and logistic context favourable to relevant research. The addressability in the clinic has been in a continuous upward trend, the hospitalization morbidity being particularly complex: varying from choledocholithiasis to post-liver transplant strictures and complex obstructions, as well as from uncomplicated acute pancreatitis to complicated encapsulated

necrotic collections, mild chronic pancreatitis to complex injuries requiring advanced diagnosis. The procedural variety provides a basis for advanced research and advanced professional training activity in therapeutic endoscopy.

B. Scientific achievements in the field

Taking into consideration the complexity and specificity of the research activities within this direction of interest, the scientific achievements are once again classified into two research goals - the multimodal approach of pancreatic pathology and the position of ERCP in the current endoscopic practice.

- Multimodal clinical and endoscopic approach in pancreatic pathology - the pivotal role of the gastroenterologist;
- Endoscopic retrograde cholangiopancreatography in 2022 – an insurmountable tool.

C. Professional, didactic and research involvement in the achieved results

Regarding the correlation between the research in biliopancreatic endoscopy and clinical activity, obtaining notable results in research activity requires the practice of advanced endoscopic procedures. Moreover, regarding the didactic activity in gastroenterology, it is well known that biliopancreatic pathology is a borderline field for the medical student, being approached both by the curriculum specific to internal medicine and gastroenterology and by the one specific to the field of abdominal surgery. Additionally, from a pedagogical point of view, the team of specialists of the Bucharest Emergency Clinical Hospital has been recognized for over ten years as a tertiary centre for advanced professional training in digestive endoscopy for residents and gastroenterology specialists from Romania and Europe, in the field of biliopancreatic endoscopy.

Therefore, it can be stated with a great deal of certainty that, at the level of the centre where I work, the research activity followed not only the clinical activity but also the didactic activity, the research team that I am currently coordinating at the local level being formed and perfected in our clinic.

D. Impact and visibility of the results

The activity of the Gastroenterology ward of the Bucharest Emergency Clinical Hospital in the field of advanced biliopancreatic endoscopy is today well-known in Romania and Europe.

- ***Complex approach to the patient with chronic digestive pathology - interdisciplinary contributions and therapeutic challenges***

During my scientific and professional activity, I followed a global, complete and nuanced approach to the patient with digestive pathology. Despite a trend I support - that of overspecialization of the gastroenterologist in an area of usual interest, I believe that the gastroenterologist with research concerns must extend the usual practice to adjacent areas of interest. The direction of professional scientific interest is one of continuous expansion - a desirable aspect to continue during the following period of time.

A. The background of the scientific context

During postdoctoral research, I was honoured to be part of different research collectives with concerns towards clinical gastroenterology and the impact of basic morphofunctional sciences in gastroenterology research. Naturally, the focus of interest of a gastroenterologist with concerns in digestive endoscopy and emergency gastroenterology was directed towards inflammatory bowel diseases, digestive cancer and chronic liver pathology.

The main directions of my scientific interest as well as an analysis of the way in which the professional, didactic and research involvement materialized within the obtained results were mentioned in this thesis subsection, concluding with a critical approach to the impact and visibility of the obtained results:

- The study of interdisciplinary contributions in the complex approach of patients with inflammatory bowel diseases and the assessment of their impact on the patient's quality of life
- The study of interdisciplinary contributions in the complex approach of patients with chronic liver diseases and digestive oncological pathology

B. Scientific achievements in the field

Involving inter- and multidisciplinary teams secures the standard of quality in the medical professional act as well as in the didactic and research activity. In terms of clinical activity, such involvement is necessary for a global approach to clinical cases, allowing any clinician not only to achieve professional success through the quality of care but also to acquire leverage to facilitate patients' access to a complex medical act.

On the other hand, the didactic activity is probably the most eloquent matrix for the implementation of the principles of multitasking and multitargeting in medicine - since training as a doctor involves the acquisition of global skills and the duty of the teaching staff is not to exercise overspecialization, but to guide the student coherently and systematically through the curriculum. Therefore, the approach in the research activity of as many directions as possible

in the field of disciplinary interference allows the researcher-teacher to acquire a complex experience that can later be materialized in more erudition, methodology and competence in the exercise of the didactic act.

In terms of research activity, the results obtained solidified local and national teams of multidisciplinary collaboration in research - a vital aspect in the activity of any member of the academy. The specificity of research in gastroenterology brings the spotlight on subdisciplines, an aspect that can be detrimental to certain research directions such as inflammatory bowel diseases, digestive oncology, clinical hepatology or malnutrition syndromes. Therefore, the approach to these subjects forced the formation of sometimes even pandisciplinary teams, in this way it was possible to obtain an increase in the quality and complexity of the research approach.

C. Impact and visibility of the results

The research direction “The complex approach of the patient with chronic digestive pathology - interdisciplinary contributions and therapeutic challenges” made it possible to collaborate with competent teams of specialists and researchers both from Bucharest and at a national level. So far, I have contributed to the writing of 10 scientific papers published within this research direction, 4 of which as the main author.

The second part of the Habilitation Thesis aims to address personal plans for the evolution and development of the academic career. This part is structured in three sections containing the explanation of three personal development projects along the medical, didactic and research professional lines. This last personal development project will be approached in two subdivisions intended on one hand for continuity in the research activity, and on the other hand for new research projects. In the research activity, I proposed the continuity of previous directions regarding teaching in the field of diagnostic and interventional endoscopy, as well as the development of new research perspectives. Specifically, I want to ensure the optimal environment for the theoretical and practical professional development of medical students, resident doctors and young gastroenterologists. I was constantly involved as chairman and speaker at international congresses and conferences, bringing an important scientific contribution to the medical community by exemplifying cases encountered in practice. Regarding the new research directions, I proposed to promote research programs, development of endoscopic procedures, as well as innovation in education, which I can implement in the practice of the Bucharest Emergency Clinical Hospital. These objectives will be met by

attracting projects and grants, but also by developing and promoting internal, national and international cooperation activities.

The final goal is to facilitate the access of as many patients as possible to diagnosis and treatment, together with the training of the most advanced endoscopists in the field. I want to channel innovative procedures by creating dedicated working groups, so that techniques with high difficulty can be implemented and perfected. Consequently, I intend to organize training programs in advanced endoscopic techniques both by sharing my own experience and by inviting international experts to participate as mentors. Therefore, I will contribute to increasing the level of practical knowledge of the collective, but also of other participants, intending to develop these programs at the local and national levels.

The conception, drafting and defence of the Habilitation Thesis represent a corollary of my medical academic activity encapsulating a clinical, interventional and administrative medical practice, continuous medical teaching, advanced training of specialists in interventional digestive endoscopy and involvement in various approaches and research projects. Obtaining the academic qualification in medicine will allow me to perfect projects and academic models by augmenting the local research activity, strengthening a team of doctors involved in research and materializing an authentic contribution to the current scientific flow related to gastroenterology and advanced digestive endoscopy.

The Habilitation Thesis is concluded with a series of concluding remarks followed by a critical apparatus presented in the form of an extensive bibliography that is the basis of the scientific argumentation of the information presented throughout the Thesis.