



UNIVERSITATEA TITU MAIORESCU
GRAD DE ÎNCREDERE RIDICAT



ȘCOALA DOCTORALĂ
DOMENIUL DE DOCTORAT MEDICINĂ

TEZĂ DE ABILITARE

**SUMMARY OF THE
HABILITATION THESIS**

CANDIDAT,

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The habilitation thesis entitled "INTEGRATIVE ANALYSIS OF GENETIC AND NONGENETIC FACTORS IN THE PATHOLOGY OF HUMAN DISEASES", structured according to the recommendations of the Romanian CNATDCU, presents the evolution of my professional activity in the field of monogenic and polygenic diseases, is a synthesis of the scientific, academic and professional activities that I have undertaken after defending my doctoral thesis in 2010 entitled "Study of mutations of genes predisposing to colorectal cancer" under the supervision of the late professor Dr. GAVRILĂ Lucian.

The section "Scientific, professional and academic achievements" is structured in 3 main chapters: Chapter I - Scientific research directions and results; Chapter II - Professional evolution and achievements and Chapter III - Academic evolution and achievements.

In Chapter I, the selection of research directions presented in the habilitation thesis "INTEGRATIVE ANALYSIS OF GENETIC AND NONGENETIC FACTORS IN THE PATHOLOGY OF HUMAN DISEASES" was guided by the need to reflect the multidisciplinary nature of my training and activity. I opted for a structure that captures the evolution from fundamental/clinical research specific to the postdoctoral stage towards an integrative perspective, focused on the multifactorial analysis of monogenic and polygenic diseases. The professional contributions are organized in three major directions:

- MULTIFACTORIAL ANALYSIS OF MONOGENETIC DISEASES
- MULTIFACTORIAL ANALYSIS OF POLYGENIC DISEASES
- MULTIFACTORIAL ANALYSIS OF NONGENETIC AND PHARMACOLOGICAL FACTORS IN HUMAN DISEASES

Each direction was chosen to highlight: - consistency in investigating pathologies with major social impact (e.g. spinal muscular atrophy - AMS; colorectal cancer - CRC; diabetes mellitus type 1/2 - DZT1 and DZT2); - the ability to coordinate teams / complex projects (through involvement in national/international projects as director or collaborator) and - the direct clinical relevance of the results (supported by publications in which I had the role of main/corresponding author).

I mention that each chapter or subchapter briefly presents the context and objectives of the research, the main results and their implications, and finally emphasizes the importance of the problem addressed and the way in which the results were disseminated.

In Chapter II, I presented the stages of my professional career development, the summary of my doctoral thesis, I presented the research/educational projects in which I took part, and I presented my management and leadership experience.

The impact and recognition of my professional activity are demonstrated by a constant presence in the national and international scientific flow. This is reflected in the publication of

books and articles in specialized publishing houses and journals, along with citations in ISI indexed publications. Also, the visibility of the scientific community is attested by presentations at international conferences, involvement in organizing or scientific committees, membership in professional associations, as well as by the activity of reviewer and member of editorial boards of some ISI and BDI rated journals. I have 26 articles published in international ISI rated journals with impact factor, of which 11 as first author and 5 in journals with impact factor over 2.5 (average IF = 3.973). From the analysis of the citation ratio performed in Web of Science, the published articles accumulated over 143 citations, reflected in an H-index = 8, and from the analysis performed in Google Scholar, the published articles accumulated over 345 citations, reflected in an H-index = 11.

In Chapter III, I presented my academic evolution and achievements, my academic career within UTM - Faculty of Medicine, the undergraduate theses that I coordinated, as well as the committees in which I participated as a referee.

In the "Career Evolution and Development Plans" section, I have developed a medium and long-term career development plan that aims at an integrated approach that harmoniously integrates cutting-edge scientific research, the modernization of medical teaching and raising performance standards in university clinical activity. In the short and medium term, to consolidate research directions and scientific management, my main objective will be to transform the experience gained in grant management (e.g. CNCSIS, PNII) into a sustainable research platform, by attracting funds by submitting projects as Principal Investigator in national (PN IV) and international (Horizon Europe) competitions, focused on the fields of Medicine and Molecular Biology. The central pillar of my development strategy will be the multidisciplinary approach, by encouraging doctoral students to collaborate with related research centers in order to capitalize on my current institutional partnerships. In their preparation, I will emphasize the transfer of managerial skills, by training doctoral students not only in laboratory or clinical techniques, but also in data management and the ethics of scientific research.

The final section contains bibliographical references used to integrate the research activities described in the previous sections.

In conclusion, this habilitation thesis theoretically substantiates and empirically validates an integrated model of mentoring and academic management. This is capable of ensuring continuous scientific progress and at the same time preserving the value and humanistic core indispensable to the evolution of contemporary medicine.