

Carol Davila University of Medicine and Pharmacy

Faculty of Medicine

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PUSHING THE LIMITS IN GASTROENTEROLOGY

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I, Dr Radu Bogdan Mateescu, have written this thesis in order to give an account of my professional and academic trajectory thus far, as well as to present my main accomplishments in the field of medical research.

I started my academic career in 1999 as an Assistant Lecturer in the 2nd Department of Internal Medicine, at the Emergency University Hospital of Bucharest (SUUB). In 2002 I transferred to the Department of Internal Medicine at the Colentina Clinical Hospital; in 2009 I became a Senior Lecturer, and I have been an Associate Professor since 2014.

I have worked with tens of student classes, guiding them both in the practical arts of Medicine and in theoretical courses of Internal Medicine, Gastroenterology, Semiology and Medical Emergency, both in Romanian as well as in English. I am the co-author of several books in the curricula, such as: „Licensing Tests 1999-2000” edited by E.Ciofu, R.Palade, D.Andronescu, T.Nanea and published by Ed. Universitară C. Davila, Bucharest, 2001; „Gastrointestinal bleeding in digestive diseases – university course”, coordinated by Prof. Dr. Dr. Carmen Fierbinteanu-Braticevici, Prof. Univ. Dr. M. Diclescu, Ed Universitară Carol Davila, 2018. I have always strived to be close to my students, and have encouraged them to demand more from their teachers and to engage in extracurricular activities. I believe I have been fair in their grading and adhered to the rules of the faculty body. Many students have shown appreciation for our work at Colentina Clinical Hospital and I am thankful that they decided to join me here as my colleagues. I take great pride in collaborating with existing Student body associations (SSM) in developing current projects.

In 2006, as a Specialist in Internal Medicine and Gastroenterology, I concluded my doctoral studies with the thesis “Antiviral therapy in chronic viral B and C hepatitis” which was overseen by Prof Dr D Olteanu. Following in the footsteps of my mentors, Prof dr R Voiosu, Prof dr M Barthet and Prof dr JC Grimaud, I have pursued and tried to advance the fields of diagnostic and therapeutic endoscopy, digestive oncology, inflammatory bowel diseases and pancreatology.

I have further developed the Gastroenterology department created by Prof R Voiosu by focusing on accelerating time to diagnosis and updating endoscopic therapeutic options. I have enlarged the medical staff by bringing in enthusiastic and

promising young colleagues whom I have encouraged to grow, perform relevant research and bring innovations. The fact that the unit I lead has become one of the best tertiary referral centers in the country and is sought by many patients and referring colleagues, stands testimony to the success of my endeavours.

The experience I have gathered in this setting was the foundation for many research questions which I pursued constantly and published in relevant paper such as: „*Interstitial cells of Cajal in the gut: a gastroenterologist's point of view*”; LM Negreanu, P. Assor, B. Mateescu, C. Cirstoiu, *World Journal of Gastroenterology*, 2008, November, 7; 14 (41): 6285-6288, also “*Serum Endocan Levels are Increased in Patients with Inflammatory Bowel Disease*”. *Clin Lab*. 2014;60(3):505-10; T. Voiosu, P. Balanescu, A Bengus, A Voiosu, C Baicus, N Barbu, A Ladaru, C Nitipir, B Mateescu, M Diculescu, R Voiosu, also „*Prevalence and impact on survival of hepatopulmonary syndrome and cirrhotic cardiomyopathy in a cohort of cirrhotic patients*”; Voiosu AM, Daha IC, Voiosu TA, Mateescu BR, Dan GA, Băicuș CR, Voiosu MR, Diculescu MM. *Liver Int*. 2015 May 12.

Medical specialties develop individually or concurrently through the pressure of scientific discovery. Modern Gastroenterology is an off-shoot of Internal Medicine but it cannot develop in a vacuum: close ties with digestive surgery, pathology and digestive oncology will continue to strengthen. This insight led me to form tight professional relationships with the Pathology and Oncology departments, as is evinced in our many collaborative efforts, such as: “*Expression Profile of p53 and p21 in Large Bowel Mucosa as Biomarkers of Inflammatory-Related Carcinogenesis in Ulcerative Colitis*”, C. Popp, L. Nichita, T. Voiosu, A. Bastian, M. Cioplea, G. Micu, G. Pop, L. Sticlaru, A. Bengus, A. Voiosu, RB Mateescu, *Disease Markers*, Volume 2016 (2016) and in chapters from English-language books: “*Histologic Features with Predictive Value for Outcome of Patients with Ulcerative Colitis*” in “*New Concepts in Inflammatory Bowel Disease*”, Batool Mutar Mahdi Ed., Popp C, Mateescu RB.

The majority of my research output was in the field of inflammatory bowel disease: “*Rapid fecal calprotectin level assessment and the SIBDQ score can accurately detect active mucosal inflammation in IBD patients in clinical remission: results from a prospective cohort study*”. Voiosu T, Benguş A, Dinu R, Voiosu AM, Bălănescu P, Băicuș C, Diculescu M, Voiosu R, Mateescu B; *J Gastrointest Liver Dis*, September 2014 Vol. 23 No 3: 273-278, also “*Role of Capsule endoscopy Pillcam COLON 2 in patients with known or suspected Crohn's disease unwilling or refusing to undergo colonoscopy: a case*

series”; L. Negreanu, Smarandache G, B. Mateescu: *Techniques in Coloproctology* 2014 Mar;18(3):277-83, also “Quality of colonoscopy preparation in inflammatory bowel disease patients: retrospective analysis of 348 colonoscopies”; Negreanu L, Voiosu T, State M, Mateescu RB: *Journal of International Medical Research*, 48, 4, 2020.

Another field of interest for me has been that of interventional endoscopy, with a special focus on education and skill development. I am a co-author, alongside prominent figures of European Endoscopy, of papers such as: “*Impact of trainee involvement on the outcome of ERCP procedures: results of a prospective multicenter observational trial*”; T. Voiosu, I. Boskoski, AM. Voiosu, A Benguş, A Ladic, I Klarin, V Bove, B Busuioc, M Rimbaş, N Rustemovic, B Mateescu, I Jovanovic, G Costamagna: *Endoscopy* 2020; 52(02): 115-122, and “*Technical and clinical outcomes of ERCP procedures performed in patients with COVID-19*”: Voiosu T, Voiosu A, Boškoski I, Arvanitakis M, Bronswijk M, Hollenbach M, Benguş A, Bălănescu P, Orlandini B, Blero D, Van der Merwe S, Mateescu RB, Devière J, Costamagna G.: *Therapeutic Advances in Gastroenterology*, Volume 13 Issue , January-December 2020.

Alongside top national experts I have participated in the development of guidelines for medical practice: “*Romanian Guidelines on the Diagnosis and Treatment of Exocrine Pancreatic Insufficiency*”; C. Gheorghe, A. Seicean, A. Saftoiu, M. Tantau, E. Dumitru, M. Jinga, L. Negreanu, B. Mateescu, L. Gheorghe, M. Ciocirlan, C. Cijevschi, G. Constantinescu, S. Dima, M. Diculescu: *J Gastrointestin Liver Dis*, March 2015 Vol. 24 No 1: 117-123; “*Excellence Centers in Inflammatory Bowel Disease in Romania: a Measure of the Quality of Care*”. L Negreanu, S Bataga, C Cijevschi Prelipcean, D Dobru, M Diculescu, E Dumitru, D Gheonea, L Gheorghe, C Gheorghe, A Goldis, B Mateescu, M Tantau, A Trifan: *J Gastrointestin Liver Dis*, September 2014 Vol. 23 No 3: 333-337; and “*Nutritia in boala celiaca*” in “*Recomandări nutriționale in Gastroenterologie și Hepatologie*”, Grupul Roman de Experti in Nutritie enterala in Gastroenterologie si Hepatologie, Bucuresti, 2014 (ISBN 978-606-13-1903-9), Ed PIM, 2014.

I have found great satisfaction in contributing to various research projects in multinational teams, and this is reflected in several articles published in prestigious journals: “*Effects of a high-dose 24-h infusion of tranexamic acid on death and thromboembolic events in patients with acute gastrointestinal bleeding (HALT-IT): an international randomised, double-blind, placebo-controlled trial*”. The HALT-IT collaborators (incl. Mateescu RB); *Lancet* 2020; 395: 1927–36; “*Efficacy and safety of biosimilar CT-P13 compared with originator infliximab in patients with active Crohn's*

disease: an international, randomised, double-blind, phase 3 non-inferiority study". Ye, B.D., Pesegova, M., Alexeeva, O., Osipenko, M., Lahat, A., Dorofeyev, A., Fishman, S., Levchenko, O., Cheon, J.H., Scribano, M.L. and Mateescu, R.B.; The Lancet, Apr 27, 2019, Vol 393; 10182:1669-1772, e39, and "Acid Suppression Therapy, Gastrointestinal Bleeding and Infection in Acute Pancreatitis – An International Cohort Study"; Demcsak A, ... Mateescu B, et al.: Pancreatology 20 (2020) 1323e1331.

I am determined to continue my pursuit of worthy research themes. I have learned along the way what it takes to produce high-quality research: how difficult it is to design a correct plan to develop your idea, to gather a proper team, find financial support, sacrifice hundreds of hours of overtime and solve countless difficulties. After many years of hard work you sometimes get the chance to test your initial theory. You have to get it published in a respectable journal and hope that it accomplishes its initial goals and furthers science. The aim of entering the top tiers of your respective specialty is small and requires perseverance. I believe I have proven my dedication and that my over 30 *in extenso* papers and more than 50 published works in abstract form in high impact-factor journals, represent a gateway to this elite. According to the Web of Science Core Collection, I have gathered almost 300 citations for 52 articles, I have a Hirsch index of 10, and a mean of 22 citations/ year. The Research Index (RG) is 34.51, above that of 92.5% of the ResearchGate community members, and I have a Hirsch index of 11 not counting self-citations, according to this platform. I am confident that the future holds even higher numbers due to ongoing collaborations with Romanian and foreign researchers in the field of inflammatory bowel disease, bilio-pancreatic pathology and digestive endoscopy.

The most important resource of Romanian Medicine is, of course, the human factor so teaching is a centerpiece. The education of students should be modernized in order to allow for easy access to the patient and for more engagement on behalf of the faculty. I believe that the new epidemiological context can facilitate change by redistributing classes to several clinics, in the course of the same training period. Joint textbooks under the editorial guidance of the Deanship, on-line courses and a unique verification system will help keep a coherent standard of teaching. Participation in fundamental or clinical research should be regulated and stimulated because students have the best chance to develop research skills at this point in their career.

Residents should not be overlooked from continuous medical education programmes and constant revision and updating of this aspect is required. Examinations should be fair and consistent and professional mobility incentivized.

I have developed this thesis with a grateful heart for all those who have contributed to my career development and I sincerely hope that, by attaining this Habilitation, I shall give back more of what I have received.

Dr. Radu Bogdan Mateescu

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