

**CAROL DAVILA UNIVERSITY OF MEDICINE AND PHARMACY,
BUCHAREST
DOCTORAL SCHOOL
MEDICINE**

**HABILITATION THESIS SUMMARY
CONTRIBUTIONS TO RESEARCH IN THE FIELD OF
DIFFUSE INTERSTITIAL LUNG DISEASES AND
SARCOIDOSIS**

CANDIDATE:

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Habilitation thesis entitled “Contributions to research in the field of interstitial lung diseases and sarcoidosis” has been written according to the recommendations of the National Council for Attestation of Titles, Diplomas and University Certifications (CNATDCU) and the Regulations of the Council of Doctoral University Studies of the University of Medicine and Pharmacy “Carol Davila” Bucharest regarding the habilitation certification. The thesis includes the presentation of my career in the professional, academic and scientific perspectives, followed by the presentation of the main directions of future development in these three domains.

The first section contains my identification information. I am Associated Professor in the Pneumology I Discipline based in the Institute of Pulmonology “Marius Nasta” Bucharest, Cardio-Thoracic Department 4, University of Medicine and Pharmacy “Carol Davila” Bucharest. I am a senior pulmonologist with certification in Special Respiratory Lung Function Testing and Management of hospital services. I am the head of Pulmonology 5 Department within the “Marius Nasta” Institute. I am the vice-president of the Pulmonology Consultant Commission of the Ministry of Health. Since 1991 I passed all the steps of academic career, starting as a Junior Assistant Professor (in the Physiology Department of the University), as well as all the steps of the professional career.

The second section is dedicated to my professional activity. My formation was based in the University of Medicine and Pharmacy “Carol Davila”, where I graduated the General Medicine Faculty in 1988, and I acquired the PhD in Medicine in 2006. I followed the pneumology specialty training in “Marius Nasta” Institute of Pulmonology. My education was completed in Universite Rene Descartes Paris, where I worked in research protocols in the Lung Function Testing Laboratory of Cochin University Hospital. During my professional activity, spanning over 30 years, I accomplished several premieres in the Romanian pulmonology:

- I established the Working Group for Interstitial Lung Diseases and Sarcoidosis within the Romanian Society of Pulmonology (2013)
- I started in the “Marius Nasta” Institute the Multidisciplinary Team for interstitial lung diseases (2015)
- I established and led an Early Phase Clinical Trials in patients within the “Marius Nasta” Institute (2008).

The third section of my thesis describes my academic activity. In my over 30 years academic career I passed through all academic steps, starting in February 1991 by being a Junior Assistant Professor in Physiology Department of our University, then Teaching Assistant in the same Department, followed by Teaching Assistant in the Pulmonology Department since 1995, up to becoming an Assistant Professor in Pulmonology in 2017, in “Marius Nasta” Institute. In the first 4 years of my career I was involved in teaching students in pre-clinical University years (I and II) in Physiology. Then I switched to teaching Pulmonology to students in IVth year, by giving lectures and guiding their practical activity in hospital. I also activated in the professional education of residents in Pulmonology and other specialties. I coordinated 14 Graduation Theses of the students, each one of them becoming a small research project, many of them being finalized by publication in specialty journals.

The fourth section of the thesis refers to my scientific activity. I listed my scientific contributions in several domains:

- Interstitial lung diseases and sarcoidosis – these were my main focuses, it is the field in which I had significant contributions to research, illustrated by several articles published in collaboration to international experts, but also by the so much needed improvement of knowledge within the Romanian pulmonologists.
- Tuberculosis
- Obstructive lung diseases.

I published 28 articles in Web-of-Science registered journals, 10 articles as main author, and 18 as co-author, with a Hirsch index of 9 (in Web of Science) and 13 respectively (in Google Scholar). The articles had 351 citations in Web of Science and 754 in Google Scholar. Cumulated impact factor of the articles was 66.922. I published 15 chapters in books and monographies, and coordinated one book.

I was Project Director in two national research grants: INTEGRIS – Integrated center for the diagnosis and treatment of lung cancer, and Study regarding hepatic cells: developing of patients’ quality of life, oriented against acute liver failure and liver chyrrosis. I was parte of several international projects, among them TB Pan NET (dedicated to multidrug resistant tuberculosis), TB Portals (genetic, imaging and clinical research of multidrug resistat tuberculosis), TB NET (international network for study of tuberculosis).

I was principal investigator in more than 20 clinical trials in the field of asthma, COPD, sarcoidosis, idiopathic pulmonary fibrosis, lung cancer and Covid-19. Am fost investigator principal la peste 20 de studii clinice în domeniul medicamentului, în domeniile astm, BPOC, sarcoidoză, fibroză pulmonară idiopatică, dar și cancer pulmonar și Covid-19. I established and led a Multidisciplinary research center dedicated to early phase clinical trials in patients between 2008 and 2017.

The most relevant publications are:

- **Strambu, I. R.** (2023). Challenges of cardiac sarcoidosis. *Frontiers in Medicine*, 10, 999066.
- **Strambu, I. R.**, Seemayer, C. A., Fagard, L. M. A., Ford, P. A., Van der Aa, T. A., de Haas-Amatsaleh, A. A., ... & Cottin, V. (2023). GLPG1205 for idiopathic pulmonary fibrosis: a phase 2 randomised placebo-controlled trial. *European Respiratory Journal*, 61(3).
- **Johannson, K. A., Strâmbu, I.**, Ravaglia, C., Grutters, J. C., Valenzuela, C., Mogulkoc, N., ... & Wuyts, W. A. (2017). Antacid therapy in idiopathic pulmonary fibrosis: more questions than answers?. *The Lancet Respiratory Medicine*, 5(7), 591-598.
- **Sellares, J., Strambu, I.**, Crouser, E. D., Freudenberg, M. A., Gulati, M., Hart, S., ... & Culver, D. A. (2018). New advances in the development of sarcoidosis models: a synopsis of a symposium sponsored by the Foundation for Sarcoidosis Research. *Sarcoidosis, Vasculitis, and Diffuse Lung Diseases*, 35(1), 2.
- **Strambu, I. R.**, Serbescu, A., Leonte, D. G., Cordos, I., & Dobre, V. (2015). Tissue prints for the rapid diagnosis of malignancy in lung cancer. *Romanian J Morphol Embryol*, 56(4), 1423-1428.
- Irina Strâmbu. Sarcoidosis: an old and misterioso ladu. In: Actualități în Medicina Internă 2021, edited by Leonida Gherasim and Ioan Alexandru Oproiu, ISBN 978-973-39-0892-0 Bucharest, Editura Medicală, 2021
- Irina Strâmbu. Novelties in interstitial lung diseases. In: *Actualități în Medicina Internă*, edited by Leonida Gherasim și Alexandru Oproiu, ISBN 978-973-39-0821-0 Bucharest, Editura Medicală, 201

The last section of this Thesis is dedicated to my evolution and development plan of my academic and scientific career.

I have several goals for the next future. I aim to develop within the “Marius Nasta” Institute of Pulmonology an Expert Center for rare pulmonary diseases, including interstitial lung diseases, sarcoidosis, cystic fibrosis, pulmonary hypertension and others.

I aim to develop better skills in thoracic ultrasound, for the use in daily clinical practice and point-of-care.

I plan to contribute to the update of pulmonology residency curricula and bibliography for the specialty examination, in accordance to international guidelines and European curricula represented by the Hermes examinations developed by European Respiratory Society. I also plan to support the certification in pulmonary rehabilitation for pulmonologists, to fill in a huge gap which currently exists in the care of Romanian chronic respiratory patients.

After obtaining the qualification of coordinator of PhD theses, I will propose several PhD topics in the field of interstitial lung diseases and sarcoidosis, in several directions:

- Pulmonary imaging: imaging patterns in sarcoidosis and other interstitial lung diseases; dynamic evaluation of interstitial lung abnormalities – early changes that could suggest progression to lung fibrosis.
- Evaluation of PROs (patient reported outcomes) based on quality of life questionnaires in patients with interstitial lung diseases and sarcoidosis.
- Identification of familial forms of interstitial lung diseases by evaluation of first degree relatives of patients with ILDs
- Evaluation and monitoring of interstitial lung changes in patients with systemic diseases
- Participation in international research consortia and registries in collaboration with European expert centers in the field of interstitial lung diseases and sarcoidosis.