## Preface

XII

Lung cancer remains one of the most frequently diagnosed neoplasms and it still represents the main cause of cancer-related deaths in the world (1). Immunotherapy and targeted therapies are the new fields of medical oncology, disclosing amazing results in terms of survival and quality of life while minimally invasive approach – in its vary forms – represents the new frontier in lung cancer surgery (2).

Anyway, despite new achievements, the clinical success of an effective multimodality approach still relies on a careful preoperative analysis of prognostic and risk factors as well as on perioperative care and therapeutic strategy (3). These aspects are the core-business of the present collection, focusing – on one hand – on body composition, immune-nutritional scoring system, baseline function and performance, intra-operative events and pathological parameter; on the other hand, elderly health management, enhanced recovery after surgery pathways, fissureless techniques, surgery versus stereotatic body radiation therapy, intra-operative therapies and post-operative management have been widely investigated.

Many studies have widely demonstrated how nutritional status and immune system efficacy influences short and long-term postoperative outcomes after initial experience in metastatic and locally advanced patients not amenable of radical surgical resection (4). Similarly, it is well known – and carefully focused in this book – how preoperative lung function and baseline global assessment of patients undergoing curative lung resection for cancer may affect postoperative course. Based on this knowledge, several protocols of enhanced recovery after surgery have been developed to reduce hospitalization time and costs and to allow patients to come back to daily activities after major anatomical lung resection (5).

With the advent of minimally invasive approaches (videoassisted thoracic surgery, uniportal approach, robotic approach) many technical aspects have been recently emphasized, from the use of new sealing and dissecting devices, haemostatic and aerostatic products, to the redefinition of historical surgical steps like the fissureless approach or the fissure-last approach.

This collection of papers provides a comprehensive view of lung cancer surgery universe, focusing on clinical, technical and multidisciplinary aspects thus offering a detailed and heterogeneous route not only to thoracic surgeons but also to other specialists involved in lung cancer therapy. In particular, alternative approaches to surgery - as stereotactic body radiation therapy - have been analysed and their results compared to those offered by surgery: we have thus obtained a 360 grades view of the problem in its various form, from indications and timing to short and long-term outcomes.

I am honoured and proud to introduce this textbook for the relevance of its contents and the authoritativeness of Authors, whose efforts I am sure may offer a stimulating challenge for younger colleagues and a valuable term of comparison for more expert surgeons.

## References

- 1. Gridelli C, Rossi A, Carbone DP et al. Non-small-cell lung cancer. Nat Rev Dis Primers 2015;1:15009.
- 2. Bendixen M, Jørgensen OD, Kronborg C, et al. Postoperative pain and quality of life after lobectomy via video-assisted thoracoscopic surgery or anterolateral thoracotomy for early stage lung cancer: a randomised controlled trial. Lancet Oncol 2016;17:836-44.
- 3. Petrella F, Chieco P, Solli P, et al. Which factors affect pulmonary function after lung metastasectomy? Eur J Cardiothorac Surg 2009;35:792-6.
- Petrella F, Radice D, Casiraghi M, et al. Glasgow Prognostic Score Class 2 Predicts Prolonged Intensive Care Unit Stay in Patients Undergoing Pneumonectomy. Ann Thorac Surg 2016;102:1898-904.
- Smith TW Jr, Wang X, Singer MA, et al. Enhanced recovery after surgery: A clinical review of implementation across multiple surgical subspecialties. Am J Surg 2019. [Epub ahead of print].

Francesco Petrella, MD, PhD Associate Professor of Thoracic Surgery, Department of Oncology and Hemato-oncology, University of Milan, Milan, Italy; Department of Thoracic Surgery, IRCCS European Institute of Oncology, Milan, Italy