

Lung cancer is one of the most important disease worldwide, since it comprises of around 1 million new cases a year. Non-small cell lung cancer (NSCLC) comprises about 85% of all cases. Mortality and morbidity are very high and since de 80's decade the overall survival considering all stages treatments was circa of 15%. In most parts of the world, a huge number of patients (75%) are diagnosed in the stage IV disease. Until 2000's, chemotherapy was the backbone of the metastatic setting treatment strategies. However, the science evolution during the last decades provided several advances in this disease clinical approach. Firstly, the understanding of the lung cancer molecular behavior provided a compressive disease overview in order to develop predictive biomarkers that could help clinicians to optimize the patient's treatment. Afterwards, several others targeted therapies came up to the clinical practice, such as the Epidermal Growth Factors Receptors (EGFR) Tyrosine Kinase Inhibitors (TKI), erlotinib, gefitinib, afatinib, osimertinib, dacomitinib, and Anaplastic Lymphoma Kinase (ALK) inhibitors, crizotinib, alectinib, ceritinib, brigatinib. Furthermore, the program death 1 (PD1) and its ligand (PDL1) popped up as a new cornerstone in the lung cancer treatment. Novel drugs, such as nivolumab, atezolizumab, pembrolizumab, durvolumab, ipilimumab, acquired a main role either in the adjuvant as well as the metastatic treatment framework. To understand how to best place each of these innovative therapeutic options or how to find the best combination raised as a new challenge to the scientific community. This fantastic book is an impressive international initiative in order to join the main worldwide key leader's opinion to discuss the most recent advances in lung cancer field. The book addresses all the main related areas, such as the epidemiology and surveillance, cancer biology (oncogenes, signaling pathways, microRNA, LncRNA, exosomal ncRNA), chemotherapy and immunotherapy advances. This book is very important to research and clinicians who wants to update theirselves regarding the main lung cancer aspects of disease. Herein, the readers will find interesting topics, such as SOX2 role in lung cancer, RASSF1A and YAP1 role in metastasis activation, the role of MetaLanc9 as a biomarker to lung cancer, Hippo pathway in lung cancer development, the interaction of microRNA and KRAS pathway in lung cancer, exome-derived microRNA in cancer progression, alectinib role in first line ALK positive advanced NSCLC, osimertinib role in 1st line EGFR positive advanced NSCLC, inflammation and cancer, the future of immune checkpoint blockade immunotherapy, mechanisms of Epithelial-mesenchymal transition-induced metastasis and many others. Therefore, this book is a great opportunity to keep you updated regarding lung cancer issues and to improve the clinical practice and research worldwide in this field. I hope you enjoy the book!



Ramon Andrade de Mello, MD, PhD, FACP

Professor of Medical Oncology,
Head of the Lung Cancer Clinics/Division of Medical Oncology,
Head of the Precision Oncology & Health Economics Lab,
Escola Paulista de Medicina—Federal University of São Paulo, São Paulo, Brazil;
Faculty of Medicine & Biomedical Sciences, University of Algarve, Faro, Portugal;
Scientific Advisory Board for the European School of Oncology (ESO) and
Faculty of the European Society for Medical Oncology (ESMO);
Preceptor of the Virtual Mentor Preceptorship Program, American Society of Clinical Oncology (ASCO)