Foreword

Lung cancer remains one of the most challenging malignancies encountered by clinicians and specialists around the world. The enormity of the human costs are staggering. It is the cause of death in over 1.5 million individuals globally and is the greatest source of overall cancer mortality. At nearly every aspect, regarding this disease, there is difficulty. On a molecular level, the heterogeneity and complexity of aberrations reflect the myriad neoplastic transformative pathways that lead to the development of lung cancer and provide numerous avenues within which these tumors can develop resistance towards treatment; collectively presenting a moving target for novel therapies. The central location of these tumors and quiescent early clinical course often prevent early detection and diagnosis, as the majority of these patients present with advanced disease. The lungs themselves are a critical organs, with physical and physiologic limitations that oftentimes preclude aggressive surgery. Further, it is comprised of delicate tissues that limit the extent of radiotherapy and chemotherapy that can be given to a patient. Lastly, the co-morbidities that often accompany lung cancer provide yet another barrier to the maximal care that can be provided to this population. Given the scope of this global problem, therefore, the editors and authors of *Lung Cancer Precision Medicine* and the efforts of the AME Publishing Company are to be praised and congratulated, for they have provided a cogent, comprehensive, and superbly structured book on this complicated subject.

The sections of the book follow in a logical order, starting first at the molecular level. Discussed are the well-known aberrant pathways (EGFR and ALK rearrangement), but of equal importance is an overview and update on the wealth of knowledge that has been gained regarding the molecular pathogenesis of lung cancer, as we move through the Genomic Era. This first section provides the foundation for the remaining sections, as the molecular information is deftly woven into the discussions of screening/diagnosis, prognosis, and treatment strategies (including both the development of novel, targeted biologic therapies and improvements within the traditional surgical, radiotherapeutic, and chemotherapeutic modalities). The future directions of clinical trial design, which ties all of these concepts together, comprise the final section of this book and provide a road map for the ongoing struggle against this difficult disease.

Regardless of the experience or background of the reader, *Lung Cancer Precision Medicine*, is an embodiment of the multidisciplinary approach. The reader will easily add to their own cache of knowledge within their own area of expertise. However, given the manner in which this book is constructed and how the chapters are written, it will invite readers to learn considerations and insights regarding this disease from perspectives and fields that are quite different than their own, thus enriching their own understanding of lung cancer.

Jiade J. Lu, MD, MBA

*National Distinguished Expert, Executive Vice President, Shanghai Proton and Heavy Ion Center*