

Translational medicine is a significant and rapidly evolving aspect of current clinical practice, especially in the field of cancer research. It is an umbrella term encompassing multidisciplinary collaborations to bridge the gap between basic research and clinical practice, with the aim of enhancing patients' preventive, diagnostic and treatment options for a wide range of diseases through the “bench to bedside” mode.

Lung cancer is the leading cause of cancer-related deaths worldwide. In recent years, the biology of lung cancer has been more clearly recognized through basic and clinical researches. Simultaneously, the prognosis of lung cancer patients has also improved greatly with the development of new technologies and interventions, of which the following two are particularly significant: (I) liquid biopsy: this is an emerging technology that may make up for the limitations (e.g., insufficient quality and quantity of advanced-stage patients; inability to dynamically monitor mutation status etc.) of tissue biopsy which is currently regarded as “gold standard”. Body fluids acquired from patients can be used to measure cancer biomarkers such as cell-free DNA (cfDNA), circulating tumor cells (CTC) and exosomes; (II) targeted therapy: treatment strategies for advanced lung cancer, in particular non-small cell lung cancer (NSCLC) are mainly guided by driver gene mutations. Small molecule tyrosine kinase inhibitors, with promising efficacy and acceptable toxicity, have been developed for treating patients with specific gene mutations, including epidermal growth factor receptor (*EGFR*), anaplastic lymphoma kinase (*ALK*) and c-ros oncogene 1 (*ROS1*).

Actually, novel biomarkers for screening, diagnosing and treating lung cancer are being developed in parallel and incorporated into clinical practice as a result of translational research. In the era of precision medicine, one should note that management of lung cancer is a comprehensive and systematic work which requires multidisciplinary collaborations (*Figure 1*).

Multidisciplinary collaborations, especially in the field of cancer research, need the establishment of effective academic exchange platforms. Fortunately, AME Publishing Company has provided an excellent academic communication platform for scholars and clinicians. I am really great honored to have served as the Section Editor (Lung Cancer) of *Translational Cancer Research* in the past year. During my first stage as a Section Editor, fifty original newly published articles with high representativeness and great clinical significance were recommended and more than 300 international experts were invited to comment on those publications. Commentaries, Editorials, and Perspectives are invited as per our editorial arrangements and the preference of the experts. In addition, we also invited the authors of these original articles to write Correspondences based on the comments we received. Between February 2016 and January 2017, we received 9 Commentaries, 27 Editorials, 9 Perspectives and 6 Correspondences authored by international top-rated experts in the field of lung cancer research. All of these articles are included in this Medical Review Serial book and are classified into the following four sections according to their contents: (I) Cancer Biology, (II) Screening and Prevention, (III) Diagnosis and Monitoring, and (IV) Treatment.

I sincerely hope that this book will play an effective role in promoting academic exchange in the high-quality platform of AME Publishing Company and *Translational Cancer Research*. I believe that the contents of this book will also be helpful to our readers vis-a-vis scientific writing, professional knowledge, study design and clinical practice in the field of lung cancer since the opinions and experience of the international experts are definitely valuable and worth learning. However, I must respectfully admit to certain unavoidable limitations in the depth and width of the topics covered in this book and hope our readers could come up with better suggestions to improve the quality of this book and the Medical Review Serial books in the future.

Last but not the least, here I would like to express my heartfelt gratitude to the Science Editors, Lucille L. Ye and Celine G. Lin for their kind assistance and patience in sending out and following up on our invitations from February 2016 to January 2017. It is my great pleasure to work with them and their excellent work is highly appreciated.

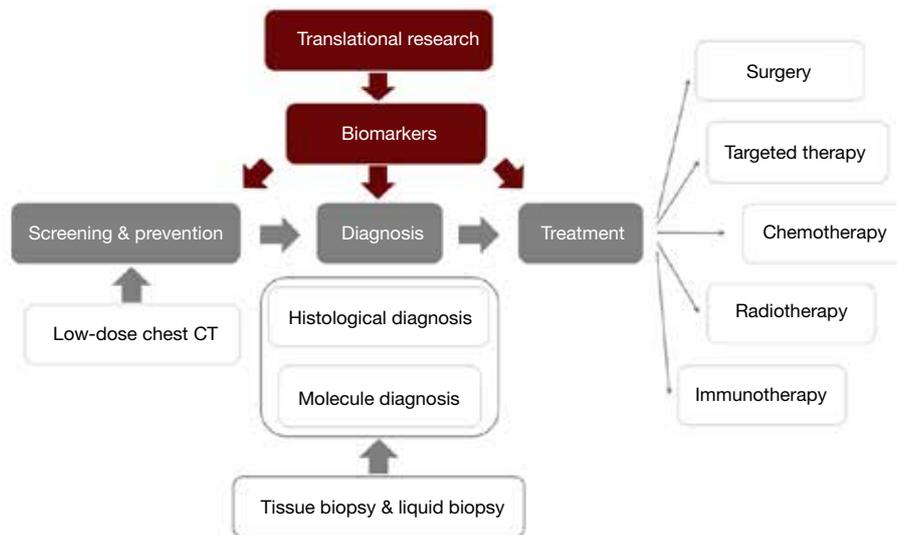


Figure 1 A concise flowchart describing the process from lung cancer screening and treatment.

References

1. Zhou C, Manegold C, Song Y. Something in need is something indeed. *Transl Lung Cancer Res* 2012;1:1-2.
2. Zerhouni EA. Translational and clinical science--time for a new vision. *N Engl J Med* 2005;353:1621-3.
3. Woolf SH. The meaning of translational research and why it matters. *JAMA* 2008;299:211-3.
4. Chuang EY. Translational Cancer Research - Message from the Editor-in-Chief. *Transl Cancer Res* 2012;1:1.



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