

In 1992, Tasuku Honjo and colleagues discovered the essential role of programmed death-1 (PD-1) in the classical type of programmed cell death (apoptosis) (1). The same group later discovered that PD-1 expression was critical for clonal selection of T and B lymphocytes and inhibition of immune responses (2). These sentinel findings ultimately led to revolutionary advancements in anti-cancer therapy with PD-1/PD-L1 inhibitory antibodies and explosion of clinical trials with regulatory approvals seen today (3,4). The discovery of the PD-1 pathway is considered a scientific breakthrough which ultimately contributed to saving countless cancer patient lives (5). Due to the impact of the extraordinary research by Professor Honjo, in 2018, he received the Nobel Prize in Physiology or Medicine. I am delighted and honored to be invited to contribute to “*Immunotherapy in Lung Cancer*” (First Edition). This book represents the culmination of the clinically relevant issues surrounding checkpoint inhibition and lung cancer. A panel of international expert authors are represented here and have contributed in the production of these seminal articles that concisely and accurately cover the broad topic of lung cancer immunotherapy. The content is categorized into immunotherapy and lung cancer, immunotherapy and early stage non-small cell lung cancer, immunotherapy and late stage non-small cell lung cancer, two expert consensus statements covering early and late stage non-small cell lung cancer, and immunotherapy and small cell lung cancer. I hope that you find the provided information to be enjoyable and of high value just as I have, and ultimately gain knowledge built on the vast experience of expert colleagues in our field.

References

1. Ishida Y, Agata Y, Shibahara K, et al. Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. *Embo j.* 1992;11(11):3887-3895.
2. Agata Y, Kawasaki A, Nishimura H, et al. Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. *Int Immunol.* 1996;8(5):765-772.
3. Tang J, Yu JX, Hubbard-Lucey VM, et al. The clinical trial landscape for PD1/PDL1 immune checkpoint inhibitors. *Nature Reviews Drug Discovery.* 2018;17(12):854-855.
4. Xin Yu J, Hodge JP, Oliva C, et al. Trends in clinical development for PD-1/PD-L1 inhibitors. *Nat Rev Drug Discov.* 2020;19(3):163-164.
5. Patsoukis N, Wang Q, Strauss L, et al. Revisiting the PD-1 pathway. *Science Advances.* 2020;6(38):eabd2712.



Jay M. Lee, MD

Surgical Director, Thoracic Oncology Program, Jonsson Comprehensive Cancer Center;
Associate Professor of Surgery, David Geffen School of Medicine at UCLA;
Division of Thoracic Surgery, UCLA Health,
Los Angeles, USA