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Abstract: Firstly investigated in the late 19th century, there is a relationship between infection and tumor regression. Coley's toxin was the beginning of cancer vaccine development empowered by investigation of the role of activating immune system after bacterial infection. Immunosurveillance and immunoediting theory was introduced as a description of the interaction between cancer and immune system in the middle of 20th century. Adjuvants, adoptive immunotherapy, interferon alpha (INFα), and interleukin 2 (IL2) were novel therapeutic approaches in that time. Later on, new vaccine types; monoclonal antibodies targeting various tumor antigens, functional molecules in cancer development, and immune checkpoints; chimeric antigen receptor T cell therapy, and oncolytic viruses were discovered in the last years and are being evaluated. They are mainly developed subsequent to the understanding of basic immunology in the tumor development i.e., through a bench-to-beside endeavor. BCG, INFα, and IL2 were approved in 20th century and Up to now, more than 25 modalities including immnunotherapeutic and immnopreventive approaches against cancer have been commercialized. Although, cancer immunotherapy still has a long way to go. It has several advantages over conventional therapies, which make it a great potential to be exploited for cancer treatment. Herein, a comprehensive insight to the evolution of cancer immunotherapy will be provided by reviewing existing literature.