Future Cancer Immunotherapy: Enhancement or Normalization of Immunity？

报 告 人：**Prof. Lieping Chen**

报告时间：**2017年1月16日（周一）15：30-17：00**

报告地点：**9501会议室**

主 持 人：**饶子和院士**

报告人简介

In 1992, Dr. Chen did the first proof-of-concept study showing that manipulation of the B7-CD28 family molecules could be used for cancer immunotherapy by introducing B7-1 into tumor cells to enhance tumor immunity. This study inspired subsequent studies using antibodies targeting CTLA-4, one of the B7-CD28 family molecules, for the treatment of cancer. Dr. Chen co-discovered the PD-1/PD-L1 pathway and singularly established the PD-1/PD-L1 pathway as a target for cancer immunotherapy in 1999-2002. He initiated and help organized the first-in-man clinical trial of anti-PD-1 antibody for treating human cancer in 2006 and developed PD-L1 staining as a biomarker to predict treatment outcomes. Dr. Chen's studies have revolutionized cancer treatment. His discoveries directly led to the development of anti-PD-1/PD-L1 antibody therapy against a broad spectrum of human cancers (first approved by the FDA in 2014).
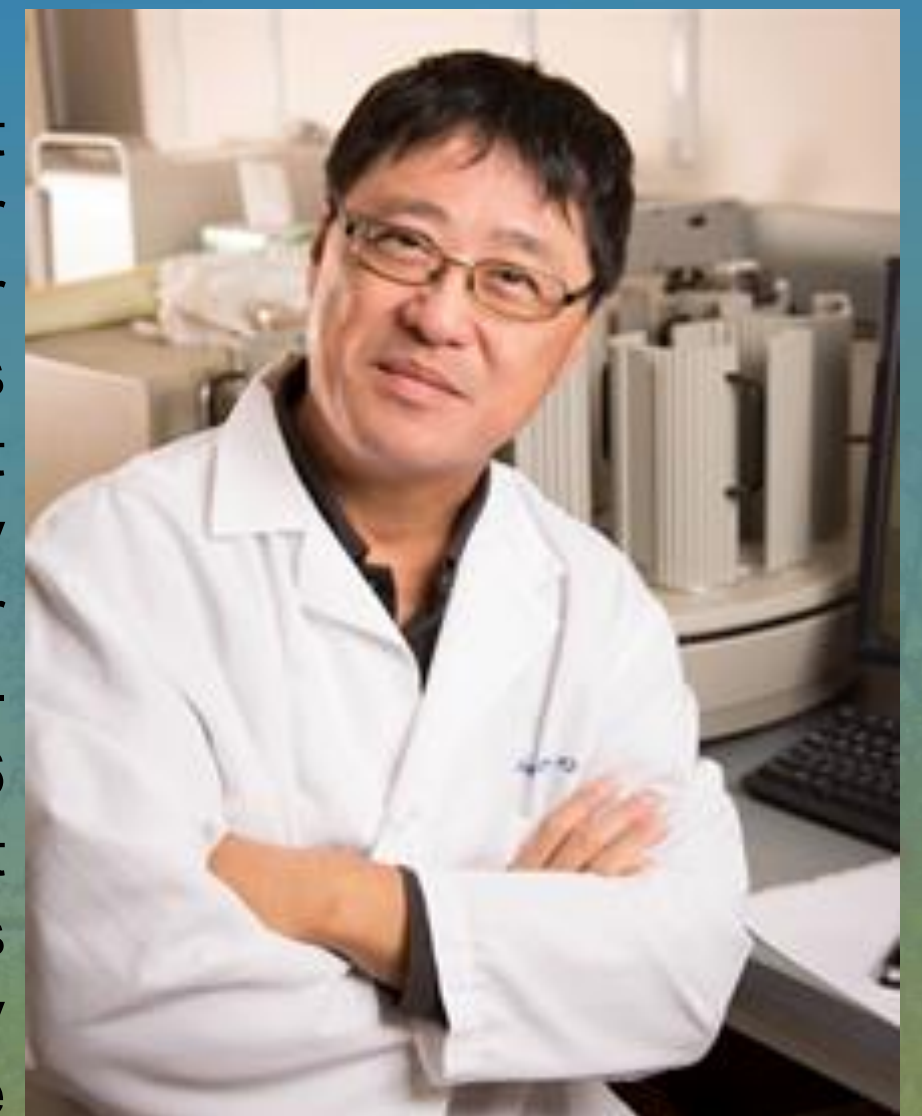
Dr. Chen's laboratory also discovered various costimulatory and coinhibitory pathways and their immunological functions and applications in human disease treatment. These pathways include 4-1BB, ICOS/B7-H2, B7-H3, B7-H4, B7-H5/CD28H, PD-1H, LIGHT/HVEM, TROY, B7-H2/CD28/CTLA-4 (human), and SALM5/HVEM. These discoveries led to the development of therapeutic agents including agonist anti-4-1BB antibody (cancer), anti-B7-H3 antibody (cancer) anti-B7-H4 antibody (cancer) and B7-H4Ig fusion protein (autoimmune diseases) which are currently in clinical trials. Dr. Chen has published more than 300 papers, reviews, book chapters and has edited two books. Dr. Chen's work in the discovery of the PD-1/PD-L1 pathway in cancer therapy was cited as the #1 breakthrough of the years by Science magazine in 2013. He has received many awards and professional recognition, including the William B. Coley Award (2014), CAHON-Lifetime Achievement Award (2015), CAST-USA Excellence Award (2016) and the AAI-Steinman Award (2016).