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Principal Investigator

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Brief Introduction:

Dr. Xu graduated from Capital Medical University with B.S. degrees, then obtained her Ph.D. degree in 2012 at Institute of Biophysics of Chinese Academy of Science. She continued his postdoc training in Dr. Yang-Xin Fu's lab at The University School of Chicago since 2013, focusing on understanding the immune aspect of don't eat me signal CD47. She found that CD47-SIRPa pathway is a novel immune evasion mechanism that tumor adapted to avoid innate immune sensing by dendritic cells. Her research interest lies in studying the underlying mechanisms of immune evasion during tumorigenesis, metastasis and immune resistant after various immunotherapy and targeted therapies, thereby providing new therapeutic targets for potential future immunotherapy to improve the overall response.

Title: Innate immune checkpoint in tumor microenvironment

Abstract

Emerging evidence emphasizes the important role of tumor neoantigens in generating spontaneous antitumor immune responses and predicting clinical responses to immunotherapies. Despite the presence of numerous neoantigens, complete tumor elimination rarely occurs in a majority of patients due to failures in mounting a sufficient and lasting antitumor immunity. Our research interest focuses on identifying novel immune checkpoints in innate immune cells that restricted the recognition and presentation of tumor antigens for immune evasion, thereby developing novel combinatorial anti-cancer strategies to improve clinical benefit.