

SIGN SEMINAR

Hosted by Dr Shi Yong NEO



Dr Dhifaf SARHAN

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Breaking Barriers in Cancer Immunotherapy: Adaptive NK Cells and Sex-Specific TME Insights

Immunotherapy has revolutionized cancer treatment, yet its efficacy is limited in over 60% of cases due to the highly immunosuppressive tumor microenvironment (TME). Dr Sarhan's research explores novel strategies to overcome these barriers by focusing on adaptive natural killer (aNK) cells and the role of sex dimorphism in shaping immune responses in treatment-resistant cancers. Recent findings have challenged the traditional understanding of NK cells, revealing that aNK cells possess immunological memory and can resist TME suppression. Dr Sarhan's work investigates the molecular mechanisms driving this memory and the crosstalk between aNK cells and antigen-presenting cells. These insights are paving the way for innovative aNK-based therapies, including cellular therapies and neoantigen vaccines. Additionally, Dr Sarhan's research highlights the impact of sex-specific immune modulation in pancreatic cancer. Her team has identified the G-protein-coupled receptor FPR2 as a key player in creating an immune-suppressive environment in female patients. By targeting FPR2, they aim to reprogram tumorassociated macrophages, enhance cytotoxic immune cell infiltration, and develop personalized therapeutic approaches. This seminar will delve into the mechanisms underlying aNK cell memory, the role of sex dimorphism in the TME, and cutting-edge therapeutic strategies designed to reshape the TME and improve cancer immunotherapy outcomes. Dr Sarhan's comprehensive and innovative approach offers a promising avenue for tackling one of the most pressing challenges in cancer treatment.



11 February 2025 (Tuesday) 10 AM – 11 AM (Singapore Time) SIgN Seminar Room 8A Biomedical Grove, Immunos, #04-06 Singapore 138648

Seminar is open for all to attend.

Registration is not required.