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Office of Academic Affairs

Cathy Yang, PhD, Vice President of Academic Affairs and Research

Research Seminar Series

Date: December 10, 2026

Time: 12PM to 1PM (Pacific)

Venue: Online

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Type 1 regulatory CD4 T cells in neoantigen cancer vaccines and beyond

Abstract

Foxp3-negative type 1 regulatory CD4⁺ T cells (Tr1) have recently emerged as a major barrier to cancer vaccine-induced antitumor responses. However, the intrinsic and extrinsic factors governing the induction of Tr1 cells remain unknown. Here I will describe how these factors shape Tr1 differentiation and how they can be targeted to improve vaccine-induced antitumor immunity.

Our Speaker Hussein Sultan, PhD



Assistant Professor in the Department of Pathology and Immunology at Washington University School of Medicine

Hussein Sultan is an Assistant Professor in the Department of Pathology and Immunology at Washington University School of Medicine. He is a cancer immunologist whose research focuses on understanding and overcoming immunosuppressive mechanisms that limit the efficacy of cancer immunotherapy, with a particular emphasis on CD4 T cell biology, neoantigen cancer vaccines, and regulatory T cell subsets. He received his PhD in Biomedical Sciences with distinction from Augusta University, followed by brief postdoctoral training at the Georgia Cancer Center. He then moved to Washington University School of Medicine to complete his postdoctoral training with Dr. Robert D. Schreiber, a pioneer in the field of tumor immunology. His work has led to seminal discoveries defining the role of neoantigen-specific Tr1 CD4 T cells in suppressing antitumor immunity, including a recent publication in *Nature*. His research integrates mechanistic immunology with translational approaches, employing murine tumor models, high-dimensional immune profiling, and human patient samples. He has received multiple honors, including the SITC Young Investigator Award and the Arthur and Sandra Irving Cancer Immunology Fellowship, and a Cancer Research Foundation Fellowship.