SEMINAR Presented by the Fralin Biomedical Research Institute at VTC



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Reprogramming the Brain Tumor Microenvironment: A Path to Novel Therapies

The brain tumor microenvironment (TME) plays a critical role during tumor development and treatment resistance. Unlike many other solid tumors, the brain TME is dominated by macrophages and microglia—collectively known as tumor-associated macrophages (TAMs). Many lines of evidence suggest that immunosuppressive TAMs dominate the brain tumor microenvironment, which fosters tumor development, contributes to tumor aggressiveness, and impedes the therapeutic effect of various treatment regimens. However, through the development of new therapeutic strategies, TAMs can potentially be shifted towards a proinflammatory state to enhance anti-tumor immunity. The promise of TAM-targeted therapy has not yet been realized, due in part to a limited understanding of the molecular mechanisms underlying TAM behavior and function. Dr. Hofstätter Azambuja's postdoctoral work has elucidated novel mechanisms that govern the polarization of TAMs in the glioblastoma TME. The goal of her research program is to continue to advance understanding of the cellular and molecular mechanisms underlying the interactions between brain, cancer, and the immune system to inform the development of new and better treatments.

WEDNESDAY, JAN. 22, at 10 a.m.

Collaboratory, Children's National Research and Innovation Campus, Washington, D.C. Or join via Zoom: <u>https://virginiatech.zoom.us/j/85094658958</u>



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