PIONEERS IN BIOMEDICAL RESEARCH SEMINAR

Presented by the Fralin Biomedical Research Institute at VTC and co-sponsored by the institute's Cancer Group

EVAN SCOTT, Ph.D.

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Engineering the Bio/Nano Interface for Enhanced Nano-Immunotherapy

Self-assembled nanobiomaterials that are engineered to achieve specific biodistributions and mechanisms of degradation hold great promise for controlled stimulation of the immune system. Taking advantage of the morphological flexibility of self-assembled systems, we aim to mimic various structures and biochemical mechanisms of pathogens to enhance cell-selective intracellular delivery and treatment efficacy during immunotherapy. Dr. Scott and his team specifically approach this by synthesizing, assembling and optimizing in vitro and in vivo a range of nanostructures loaded with strategically selected combinations of immunostimulants to achieve controlled activation or suppression of the immune system. Dr. Scott will present some of our ongoing work in the area of novel nanobiomaterials development and interactions at the bio/nano interface, as well as recent applications of our materials for the controlled modulation of cells for a variety of therapeutic applications, including cell/organ transplantation, vaccination, and treatment of atherosclerosis, glaucoma and infectious diseases.

FRIDAY, NOV. 13 at 11:00 a.m.

This seminar will be webcast live at fbri.vtc.vt.edu/events/live-webcast. In addition, students, faculty, and staff at Virginia Tech and Carilion Clinic who are invited to attend this lecture will receive Zoom access via email.

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