

# PIONEERS IN BIOMEDICAL RESEARCH SEMINAR

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



## *Design and Optimization of CAR T Cells and Their Application to Glioblastoma*

Encouraging clinical experience with chimeric antigen receptor (CAR) T cells supports the notion that even immune privileged sites such as the brain may be amenable to CAR therapy. In the context of hematologic B-cell malignancies, CD19-CARs have been shown to accumulate in the cerebrospinal fluid (CSF) and reduce the incidence of metastatic disease in the central nervous system. However, brain tumors pose significant challenges for CAR T cell therapy, including heterogeneous antigen expression, immunosuppressive networks in the tumor microenvironment that limit CAR T cell function and persistence, and suboptimal T cell trafficking to the tumor site. This presentation will describe our clinical experience with CAR T cells for glioblastoma (GBM), one of the most common and aggressive primary malignant brain tumors, and our efforts to overcome therapeutic challenges.

### CHRISTINE BROWN, Ph.D.

Professor in the Department of Hematology and Hematopoietic Cell Transplantation; Heritage Provider Network Professor in Immunotherapy; and Deputy Director of the T Cell Therapeutics Research Laboratory, at City of Hope

FRIDAY, SEPT. 18 at 11 a.m.

This seminar will be webcast live at [fbri.vtc.vt.edu/events/live-webcast](https://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.



FRALIN BIOMEDICAL  
RESEARCH INSTITUTE AT VTC  
VIRGINIA TECH.