Special Seminar
Department of Medical Microbiology and Immunology
Cancer Immunology Faculty Recruitment

Wednesday, July 31, 2019 at 10:30 A.M.
“Arming the Prime Time Killer: An Effective anti-Cancer Immunotherapy”

Publication

Abstract
Therapeutic antibodies targeting ovarian cancer (OvCa)-enriched receptors have largely been disappointing due to limited tumor-specific antibody-dependent cellular cytotoxicity. Here we report a symbiotic approach that is highly selective and superior compared with investigational clinical antibodies. This bispecific-anchored cytotoxicity activator antibody is rationally designed to instigate "cis" and "trans" cytotoxicity by combining specificities against folate receptor alpha-1 (FOLR1) and death receptor 5 (DR5). Whereas the in vivo agonist DR5 signaling requires FcγRIIB interaction, the FOLR1 anchor functions as a primary clustering point to retain and maintain a high level of tumor-specific apoptosis. The presented proof of concept study strategically makes use of a tumor cell-enriched anchor receptor for agonist death receptor targeting to potentially generate a clinically viable strategy for OvCa.

Publication

Abstract
The structural basis of blocking human epidermal growth factor receptor-2 (HER2) dimerization remains of great interest to generate effective anti-cancer therapies. Despite clinically feasible outcome in mammary tumors, a fine consensus between efficacy and safety remains a critical challenge beyond breast cancer. Here we extrapolate on the balancing act using recently reported clinical findings in salivary ductal carcinomas.