

AACR-NCI-EORTC Virtual International Conference on

MOLECULAR TARGETS AND CANCER THERAPEUTICS

October 7-10, 2021

AACR

American Association
for Cancer Research

FINDING CURES TOGETHER



NATIONAL
CANCER
INSTITUTE

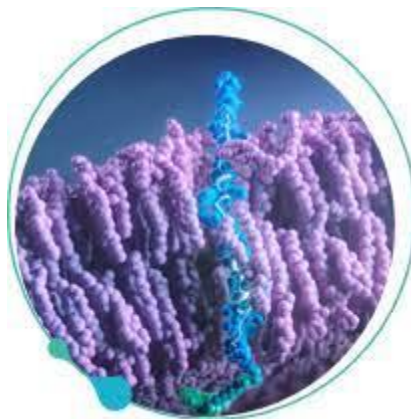


The future of cancer therapy

Development of alphalex™-auristatin low pH targeting conjugates for the treatment of solid tumors

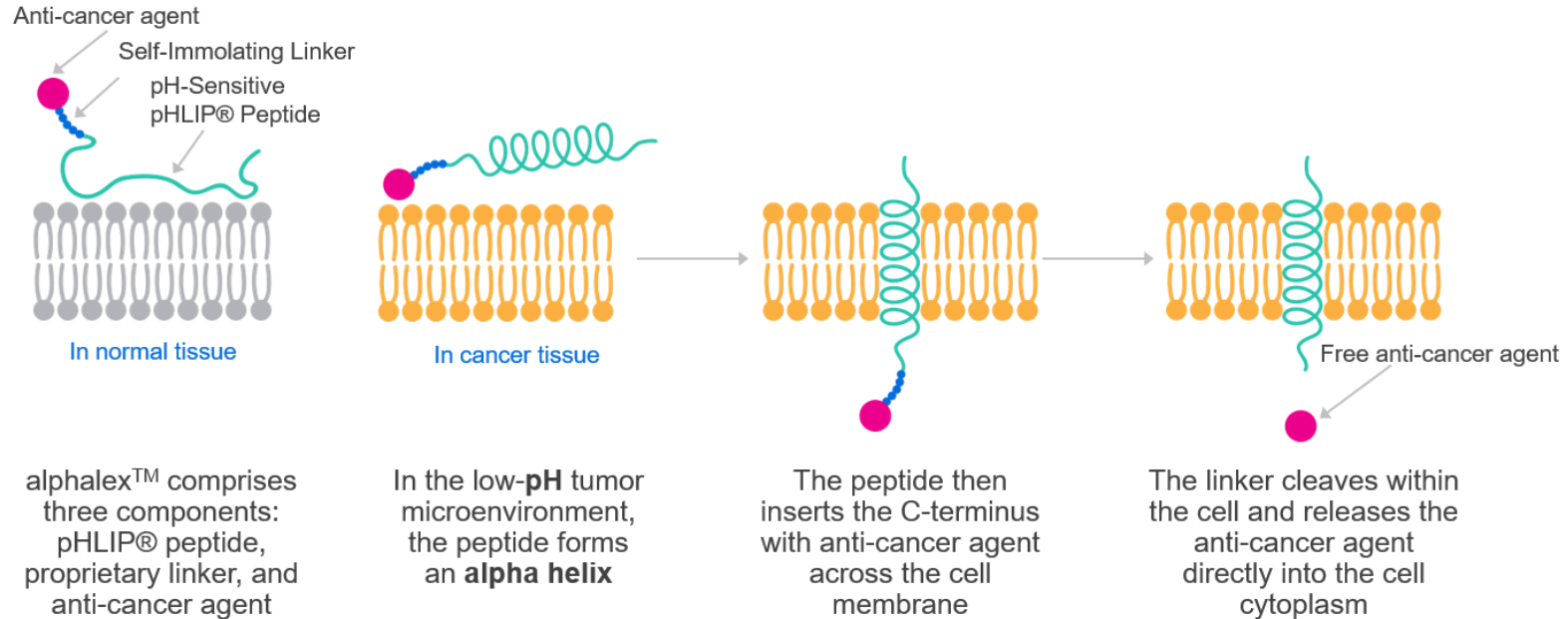
Presenter: Sophia Gayle

Cybrex Therapeutics, New Haven CT



P259

How We Do It: alphalex™ Selectively Targets Tumor Cells



alphalex™ comprises three components: pHLIP® peptide, proprietary linker, and anti-cancer agent

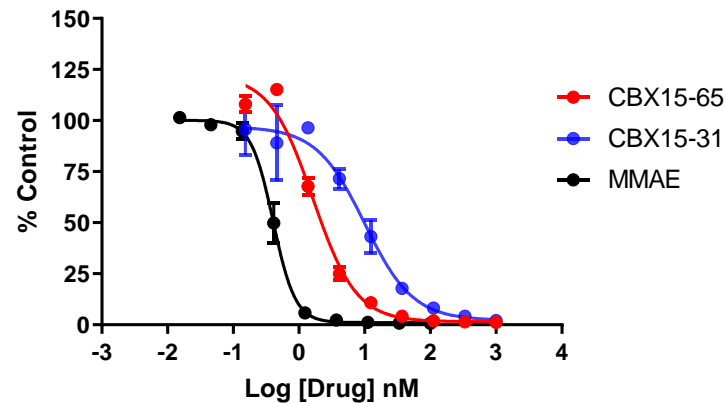
In the low-pH tumor microenvironment, the peptide forms an **alpha helix**

The peptide then inserts the C-terminus with anti-cancer agent across the cell membrane

The linker cleaves within the cell and releases the anti-cancer agent directly into the cell cytoplasm

Platform has been validated by a number of institutions and investigators in academia and industry, with an extensive body of published preclinical data

CBX-15 Series (alphalexTM-auristatin)

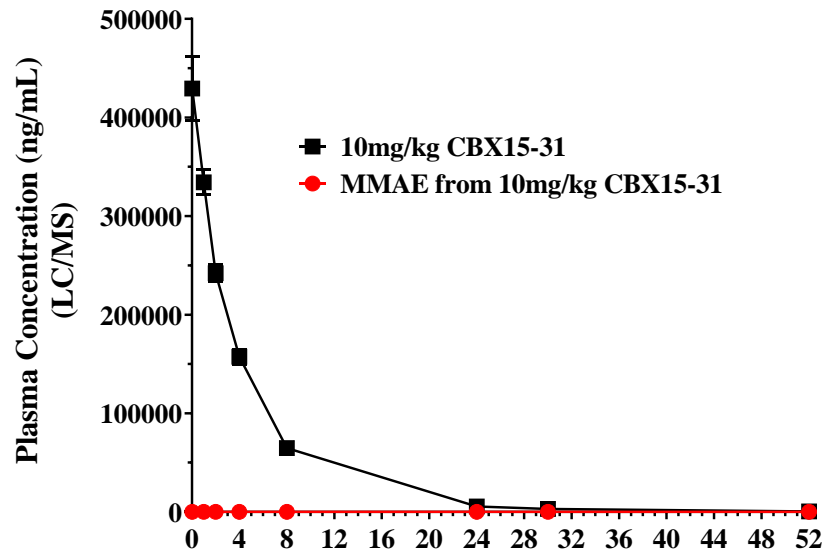


	IC50
CBX15-65	1.627
CBX15-31	9.988
MMAE	0.4042

CBX-15 series is designed to safely deliver efficacious levels of auristatins to solid tumors in an antigen agnostic manner

CBX-15-MMAE Series is Plasma Stable in the Rat

CBX15-31-MMAE

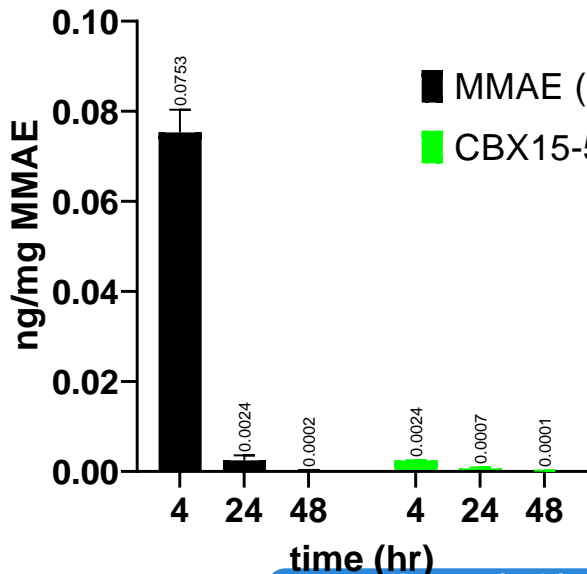


After 10 mg/kg bolus doses in the rat, CBX-15 conjugates display 0.001% stability (left) and XXXX% stability (right) after 52h in circulation

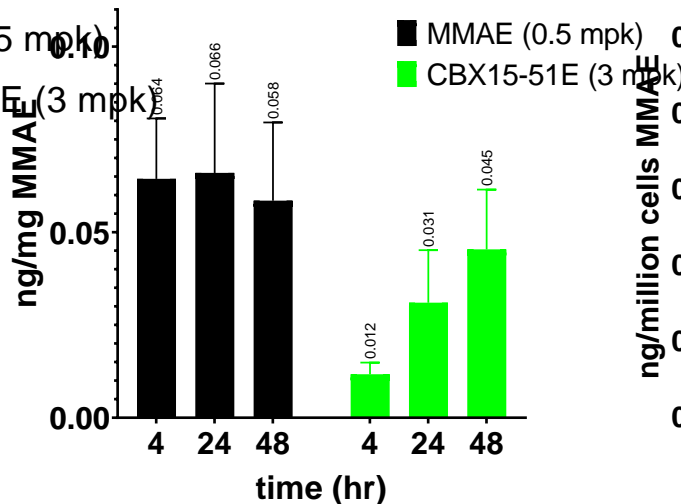
CBX-15 Delivers MMAE Warhead Selectively to Tumor

INV438

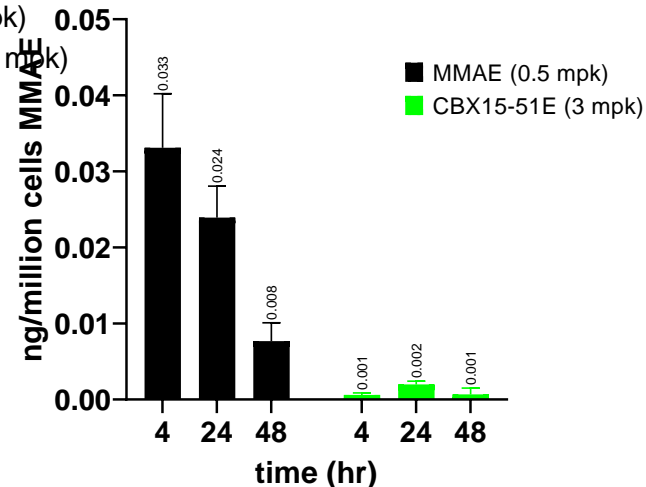
MMAE (0.5 mpk) & CBX15-51E (3 mpk)
Mouse MUSCLE Homogenate
MMAE Exposure (ng/mg)



INV438
MMAE (0.5 mpk) & CBX15-51E (3 mpk)
Mouse Tumor Homogenate
MMAE Exposure (ng/mg)

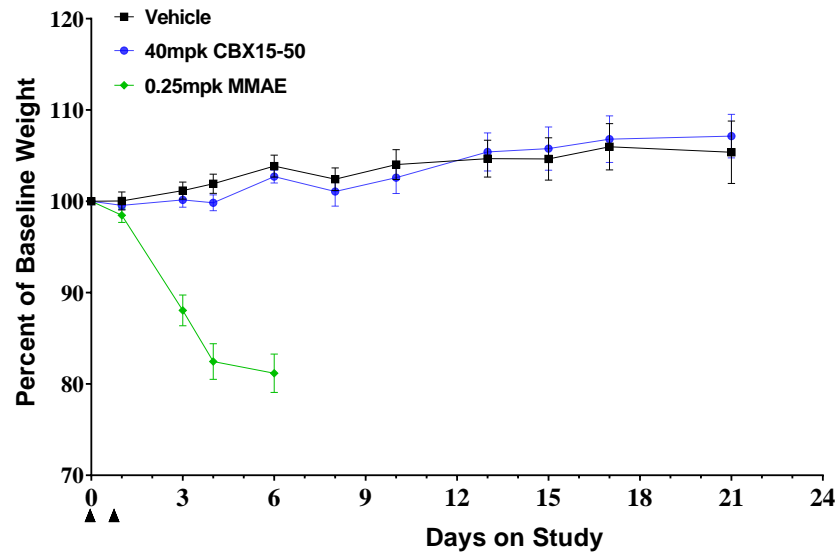
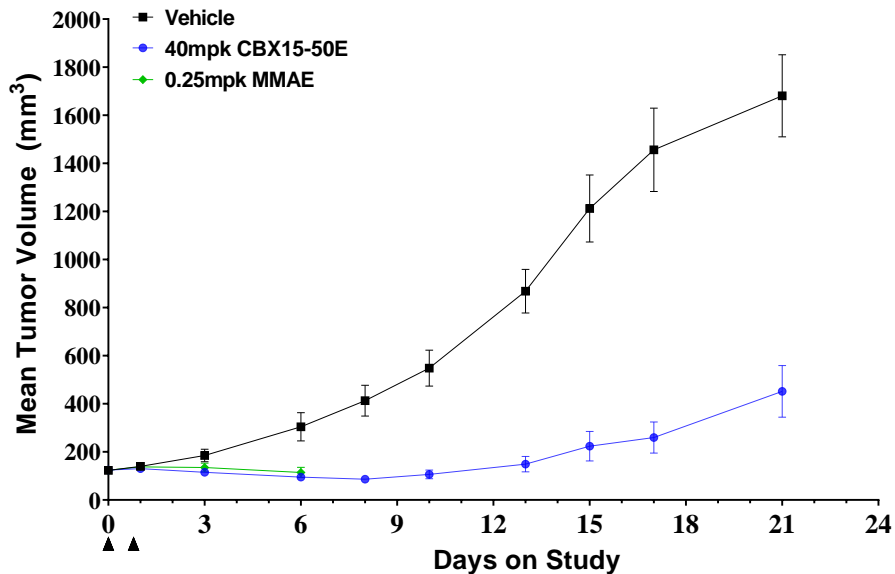


INV438
MMAE (0.5 mpk) & CBX15-51E (3 mpk)
Mouse Bone Marrow
MMAE Exposure (ng/million cells)



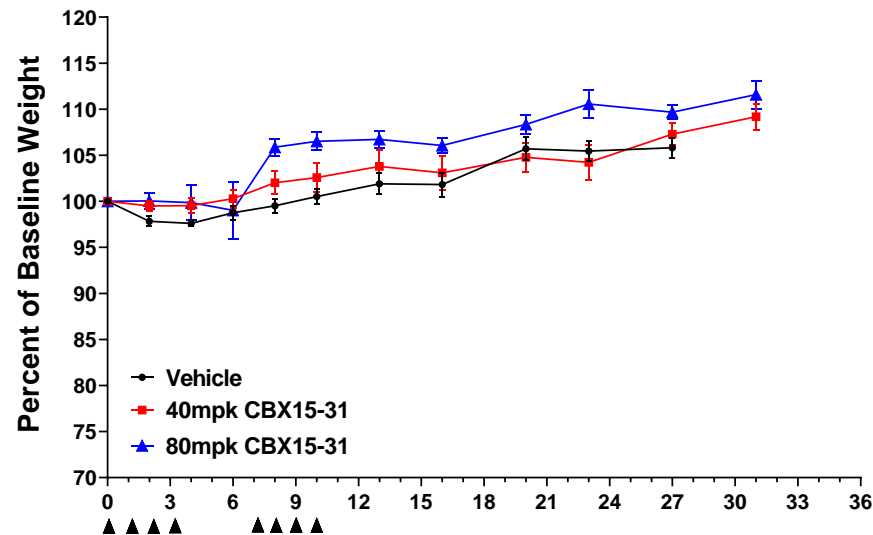
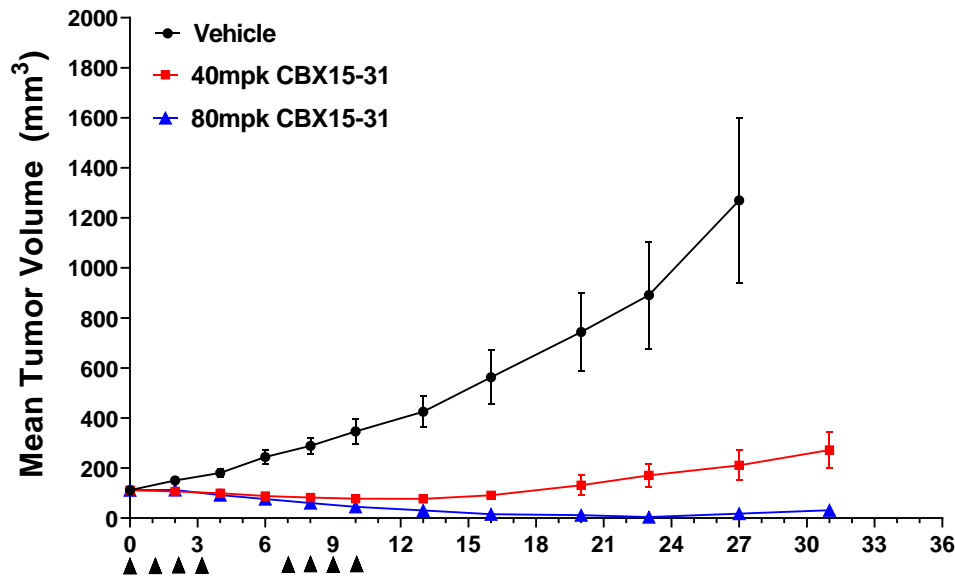
- Efficacy (left) and percent change in body weight (right) of CBX15-31-MMAE dosed i.p. QDx4/wk for 2 weeks in the HT-29 colorectal model.
- CBX-15 is safe and efficacious at high doses of up to 80 mg/kg

CBX-15-MMAE Induces Potent Anti-Tumor Activity in the HCT116 Colorectal Model



- Efficacy (left) and percent change in body weight (right) induced by CBX15-50-MMAE or MMAE unconjugated warhead dosed i.p. QDx2 in the HCT116 colorectal model.
- While unconjugated MMAE is extremely toxic, a 7 fold higher dose of MMAE is safely delivered by CBX-15.

CBX-15-MMAE Induces Potent Anti-Tumor Activity in the HT-29 Colorectal Model



- Efficacy (left) and percent change in body weight (right) induced by CBX15-31-MMAE dosed i.p. QDx4/wk for 2 weeks in the HT-29 colorectal model.
- CBX-15 is safe and efficacious at high doses of up to 80 mg/kg

