197. An optimized Peptide for targeting

(SRI International)

Asset Overview

Product Type	Peptide
Disease Area	Oncology
Indication	NSCLC, TNBC, PDAC, CRC
Current Stage	Preclinical
Target	The intracellular target
MoA	The nucleic acid sequence binds to the RNA transcribed from the gene interest in an intracellular target.
Brief Description	• Compositions comprising a nucleic acid sequence conjugated to one or more MGS peptides. • Methods of modifying gene expression of a gene of interest comprising administering to a cell a composition comprising a nucleic acid sequence conjugated to one or more MGS peptides, wherein the nucleic acid sequence binds to the RNA transcribed from the gene of interest, the gene of interest or a sequence upstream of the gene of interest. • Methods of targeting a gene of interest in an intracellular target comprising administering to a cell a composition comprising a nucleic acid sequence conjugated to one or more MGS peptides, wherein the MGS peptide targets the intracellular target, wherein the nucleic acid sequence binds to the RNA transcribed from the gene interest in an intracellular target. • Disclosed are methods of treating a subject in need thereof comprising administering to the subject in need thereof an effective amount of a nucleic acid sequence conjugated to one or more MGS peptides, wherein the MGS peptide targets an intracellular target involved in a disease process.
Intellectual Property	WO2021066931A1
Publication	Dimerization of a Phage-Display Selected Peptide for Imaging of αvβ6-Integrin: Two Approaches to the Multivalent Effect. Theranostics. (2014)
Inventors	Kathlynn C. Brown, Michael Mcguire, Shunzi Li, Indu Venugopal, Curtis Allred

Highlights

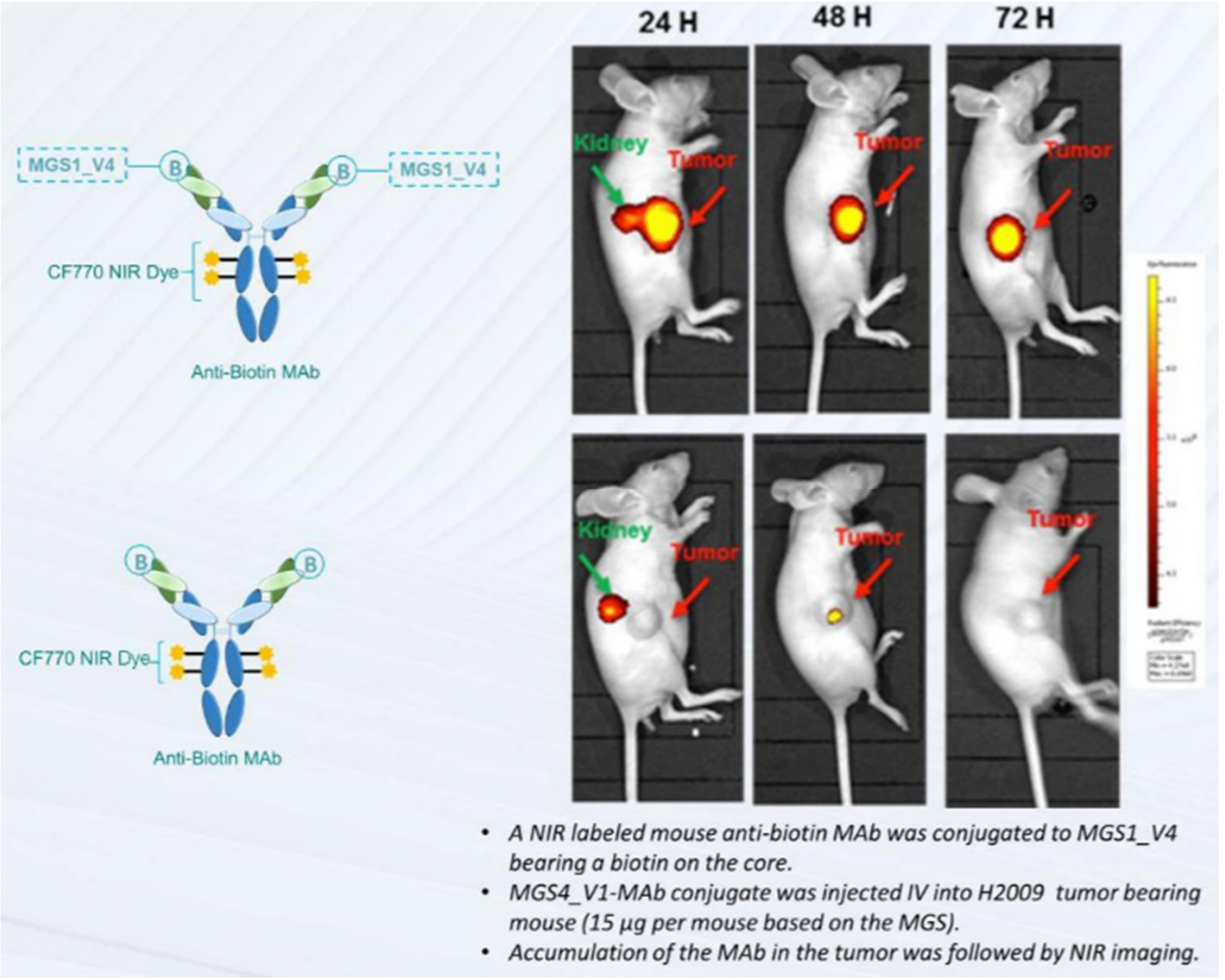
- A suite of seven optimized cancer specific MGSs is available
- Similar data for the other MGSs is available
- The cancer MGS panel covers multiple epithelial derived cancer types including NSCLC, triple negative breast cancer, pancreatic ductal adenocarcinoma, and colorectal cancer.
- Additional tumor-specific MGSs are in development.

197. An optimized Peptide for targeting

(SRI International)

Key Data

MGS1_V4 Delivers a Mab to a Tumor in an Animal Model



- *A NIR labeled mouse anti-biotin MAb was conjugated to MGS1_V4 bearing a biotin on the core.*
- *MGS4_V1-MAb conjugate was injected IV into H2009 tumor bearing mouse (15 µg per mouse based on the MGS).*
- *Accumulation of the MAb in the tumor was followed by NIR imaging.*

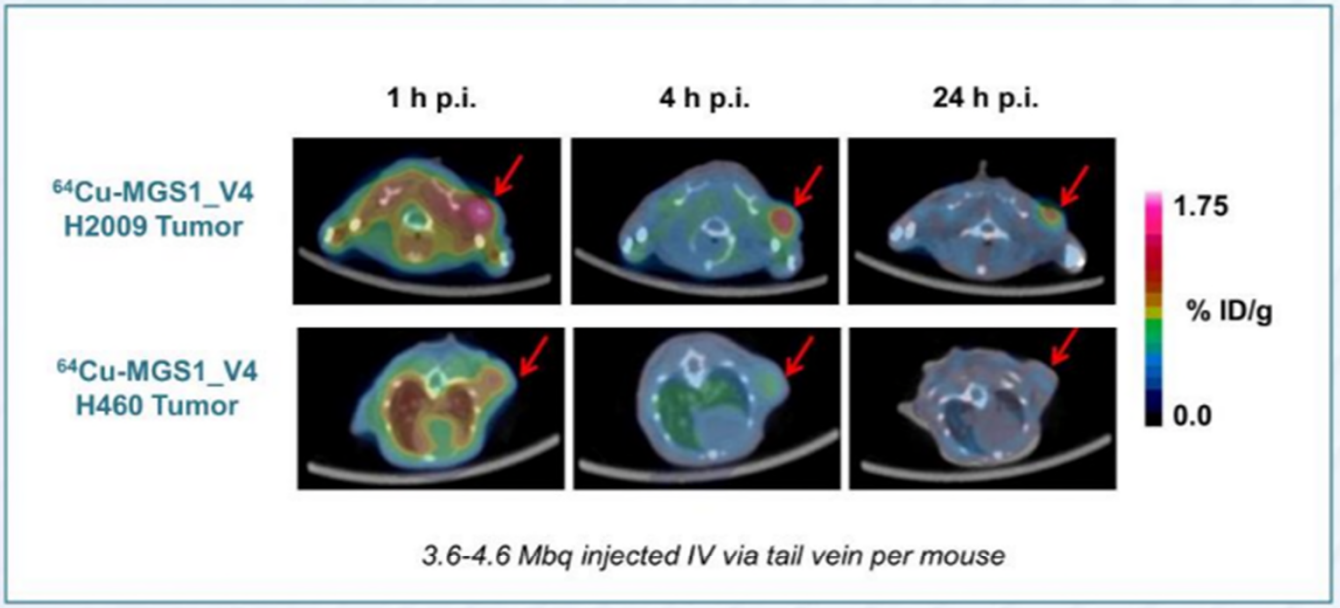
- Without the MGS, no significant tumor uptake of the mAB is observed.
- The MGS-Mab conjugate accumulates and is retained in the tumor, even at 72H.
- MGS redirects the Mab to the tumor
- Additional data available under CDA

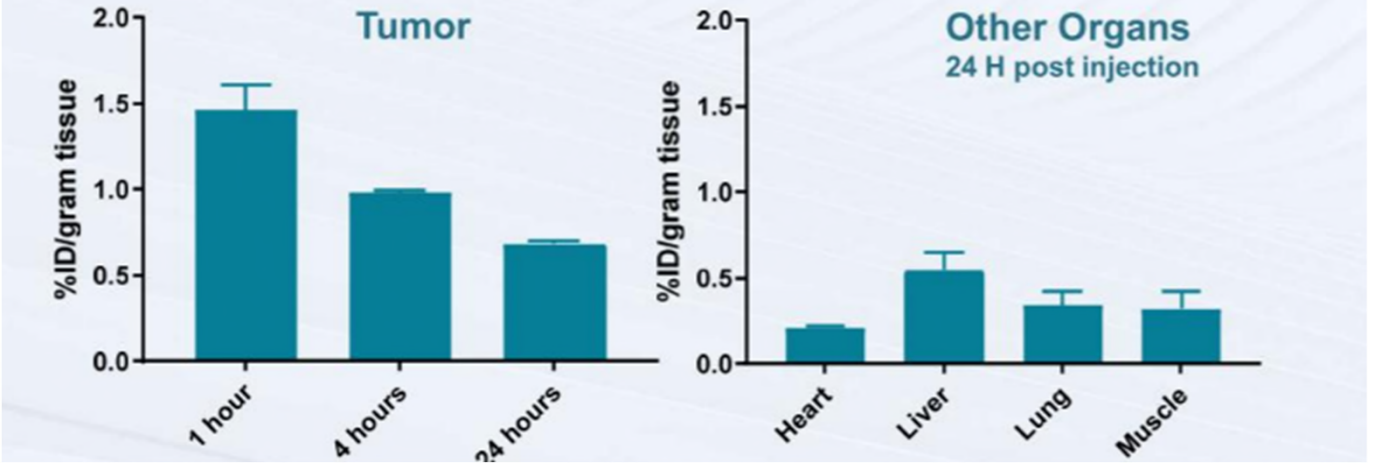
197. An optimized Peptide for targeting

(SRI International)

Key Data

^{64}Cu labelled MGS1 detects tumors by positron emission tomography





- MGS1 is retained in positive tumors out to 24 hours
- Tumor to lung ratio = 2 for all variants tested
- N-terminal modification reduces signal in all off-target organs at all time points without reducing tumor uptake
- MGS optimization dramatically has increased kidney elimination
- Additional optimization in progress to improve biodistribution characteristics