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SUTRO BIOPHARMA

Off-the-Shelf “Personalized” Cancer Therapy

A New Molecular Class to target Tumor Immunity by both disrupting the tumor and enabling the immune system

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President of Research & CSO
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Challenge: Current Immunotherapies Show Low Response Rates in Hard-to-Treat Tumors

Engineered T cell therapies limited utility (blood cancers) and have safety concerns

Checkpoint inhibitors (CPIs) only enable existing memory T cell populations and have low complete response rates in cold tumors

Void in current therapies

- Require existing anti-tumor immune response; do not elicit neo-antigen T cells
- Cannot typically turn a cold tumor hot
- Combining CPIs with similar mechanism may show incremental improvement but not disruptive change in treatment
- T cell therapies do not get adequate distribution to solid tumors
- T cell therapies have selectivity and safety issues

Need: Targeted immunotherapies that can prime de novo innate and adaptive immune responses

Targeted Immunotherapy that Drives Tumor Immunity

Novel mechanism of combining tumor killing and innate stimulation

Stimulates **immunogenic cell death (ICD)** in tumor cells

Enhances **APC activation** and **T cell priming**

Works directly on TME to turn a **"cold tumor hot"**

iADC Platform

- Optimized payloads for ICD and innate immune stimulation
- Opportunity to select payloads and linker chemistry for each TAA and tumor type

In vivo efficacy demonstrates **tumor immunity** including **complete regression** and **increase innate** and **T cell populations**

Data Presented at the World ADC Meeting in London, 3/2020

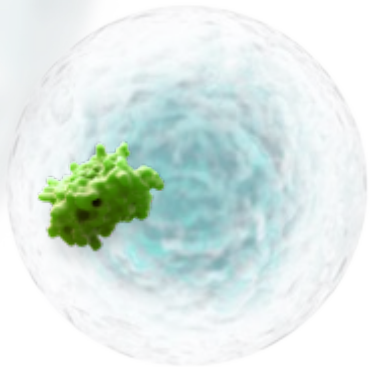
Sutro's Unique Advantage

Delivering Potentially Best-in-Class ADCs and Cytokine Conjugates

Widening the Therapeutic Index is Key to Achieving Optimized Performance

The Sutro Advantage

- Rapid iterative design
- Selection of specific sites for conjugation for optimal performance
- Homogenous end-products



XpressCF® – Our Truly Empirical Approach

Proprietary XpressCF® rapid synthesis protein library generation, precision XpressCF+™ conjugation technology and robust medicinal chemistry enables:

- Optimization of known product concepts
- Empirical evaluation of unexplored product concepts
- Rapid generation of best-in-class molecules

ADCs, iADCs & Targeted Therapeutics

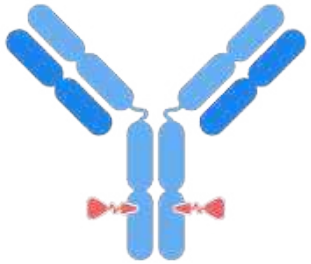
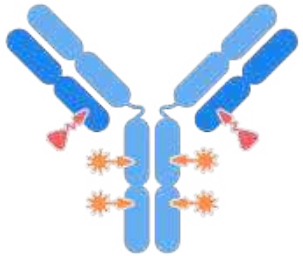
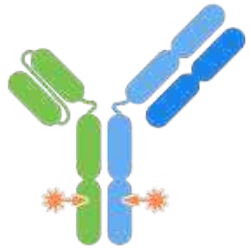
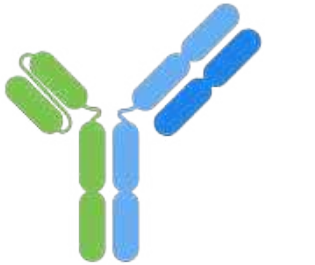
Precision delivery of active pharmacological entity with optimal attributes

Cytokine Receptor Targets

Rapid evolution of optimal attributes to enable systemic administration

Drug Discovery Platform Enables the Potential for Best-in-Class Molecules

Precise novel design to enhance efficacy and safety across multiple modalities and targets

	Cytokine Derivative	Conjugated Antibody			Bispecific Antibody	
Modality	***Prodrug Cytokine Derivative***	***ADC or ISAC***	***iADC***	***Bispecific ADC***	***Immune Cell Engager***	
Target	Tumor Selective Mask	Tumor Antigen	Tumor Antigen	Dual Tumor Antigens	Tumor or Stromal Antigen	Immune Cell Engager
Structure						
Drug Properties	Prodrug cytokine targeting functional cytokine to tumor	ISAC: Immune-stimulating ADC: targeting novel payloads	Site-specific dual drug conjugate with complementary modalities (TME modulator +/- immune modulator)	Enhanced tumor targeting of cytotoxic payloads	Optimized format and affinity Improved specificity for optimized therapeutic window	

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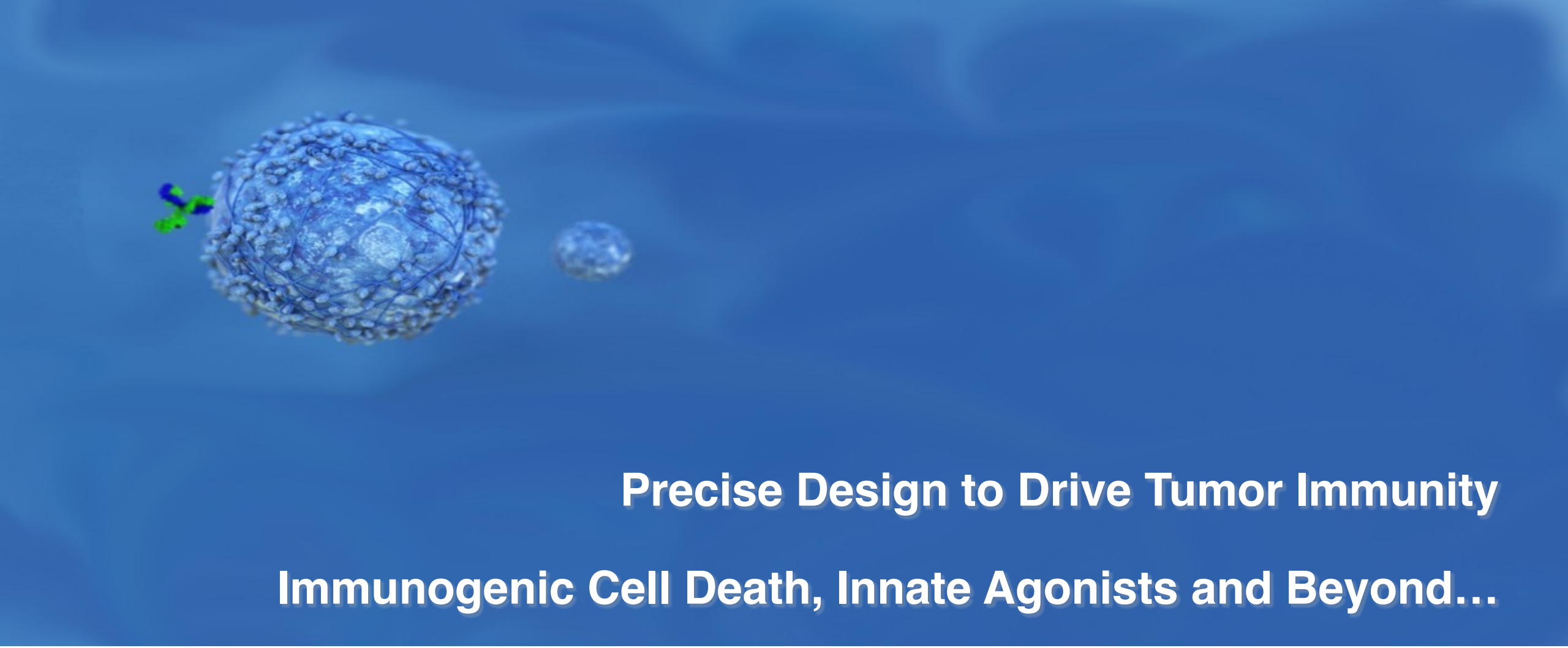
• Robust Pipeline through Wholly-Owned and Partnered Programs

•Four product candidates advancing in the clinic and late-stage discovery programs

Modality	Program	Target	Indication	Discovery	Preclinical	Phase 1/1b	Phase 2/3	Partner
Antibody-Drug Conjugate	STRO-002	FolRα ADC	Ovarian Cancer	Fast Track Designation				天士力生物 TASLY BIOPHARMA (Greater China)
			Ovarian Cancer (bevacizumab combo)					
			Endometrial Cancer					
			NSCLC/Non-Gyn Cancers					
	STRO-001	CD74 ADC	Lymphomas					BioNova Pharma 百奥泰医药 (Greater China)
			Multiple Myeloma	Orphan Drug Designation				
	CC-99712	BCMA ADC	Multiple Myeloma	Orphan Drug Designation				Bristol Myers Squibb
			Multiple Myeloma (GSI combo)					
	Discovery	ROR1, Tissue Factor	Solid Tumors					
Bispecific ADC	M1231	MUC1-EGFR ADC	NSCLC & Esophageal Cancer					EMD SERONO (1)
T-Cell Engager	Preclinical	5T4-CD3 TCE	Solid Tumors					
Cytokine Derivative	Not Disclosed	Cytokine target	Cancer	*2 Molecules*				MERCK (2)
	Discovery	IFNα, IL-12, IL-18	Solid Tumors					
Vaccine	VAX-24	24-valent pneumococcal conjugate vaccine	Invasive Pneumococcal Disease	IND clearance				Vaxcyte

(1) EMD Serono is the biopharmaceutical business of Merck KGaA, Darmstadt Germany in the US
(2) Cytokine Derivative program with Merck includes two molecules derived from one undisclosed target



Precise Design to Drive Tumor Immunity

Immunogenic Cell Death, Innate Agonists and Beyond…

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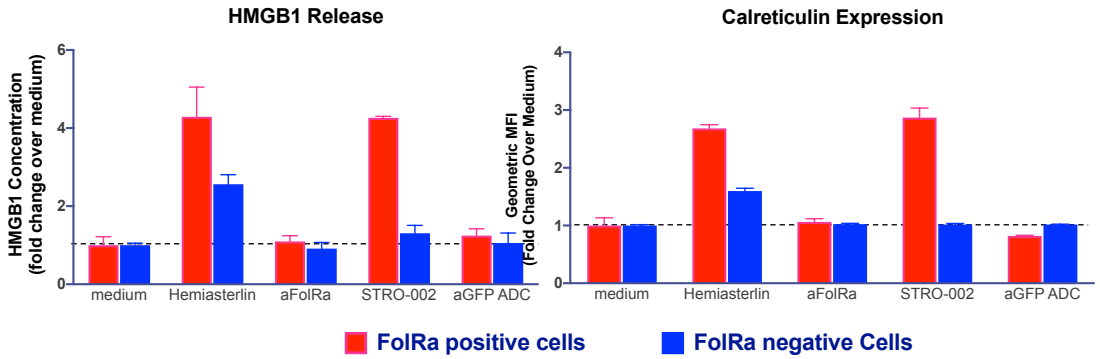
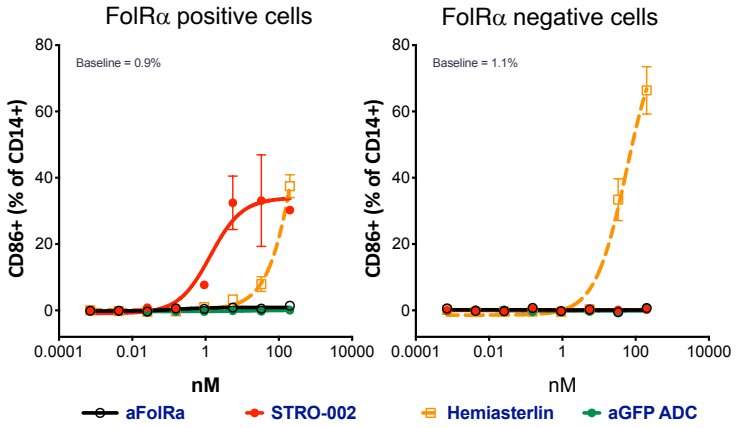
STRO-002 Stimulation of The Immune System is Mediated by Hemiasterlin and is FolRa Dependent

STRO-002 Induces Immunogenic Cell Death



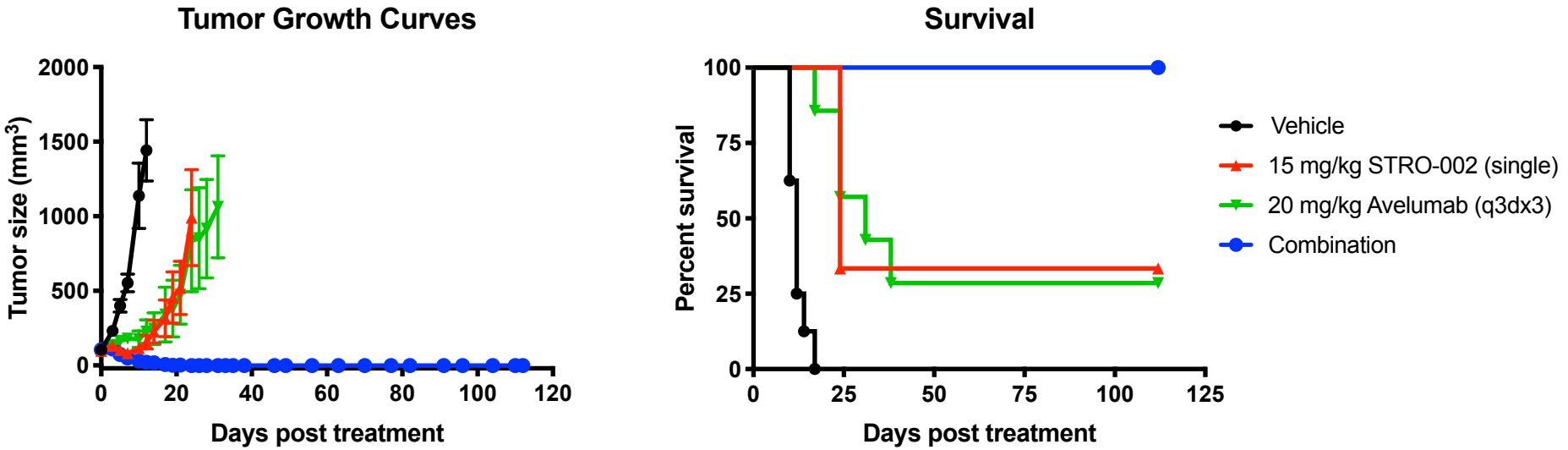
STRO-002 Activates Monocytes



- Tumor targeted immunogenic cell death (ICD) induces activation of monocytes in the tumor microenvironment
- Calreticulin and HMGB1 are markers of ICD and can enhance APC activation, recruitment and tumor antigen uptake
- Tumor ICD promotes innate immune activation and synergy with PD1 checkpoints

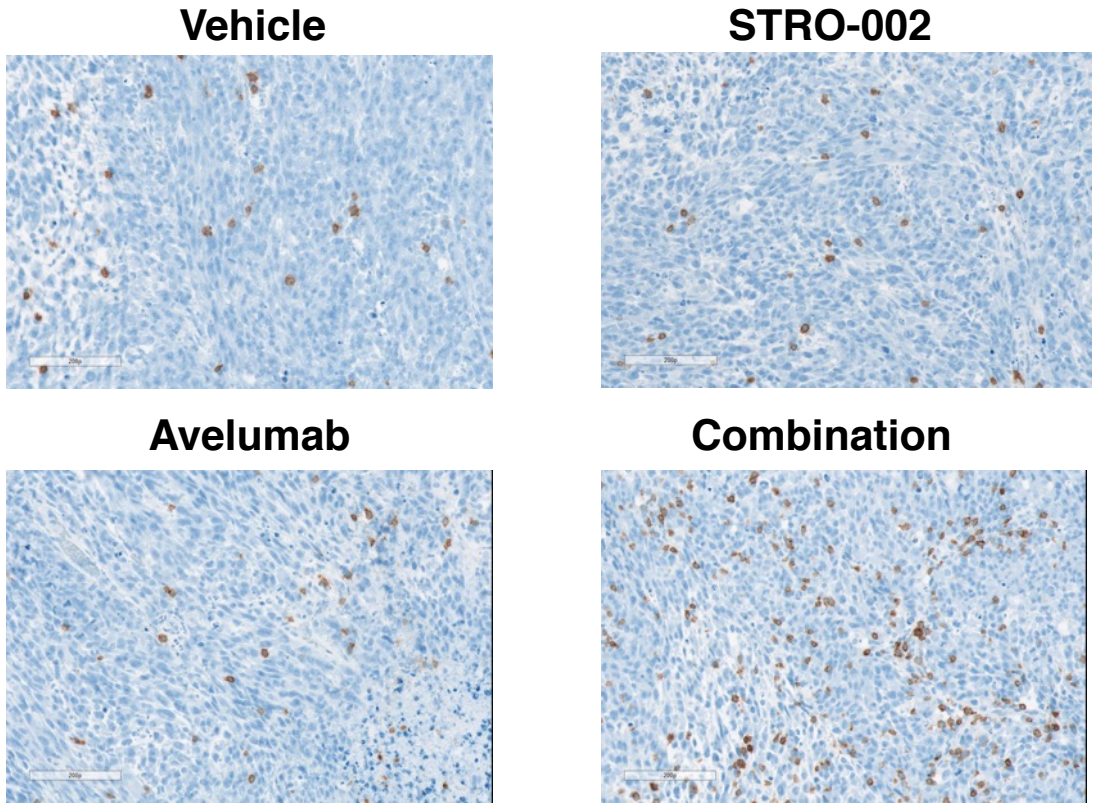
STRO-002 Induces ICD Markers only in FolRa Positive Cells

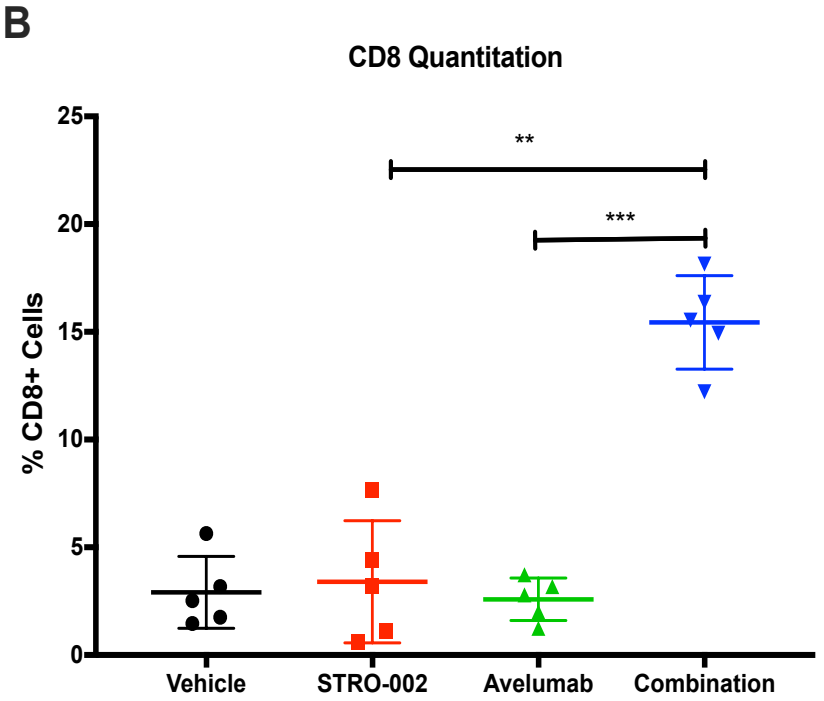
STRO-002 in Combination with Avelumab Resulted in Complete Remission of Animals Bearing MC38-FolRα Tumors



- Markedly enhanced anti-tumor activity observed with combination treatments compared to either single agent alone
- Combination treatment extended median survival compared to single agent therapy
- Combination treatment significantly increased infiltration of CD8+ T Cells into tumor; T cell infiltration not seen with either single agent therapy

Combination Treatment Significantly Increased Infiltration of CD8 T Cells





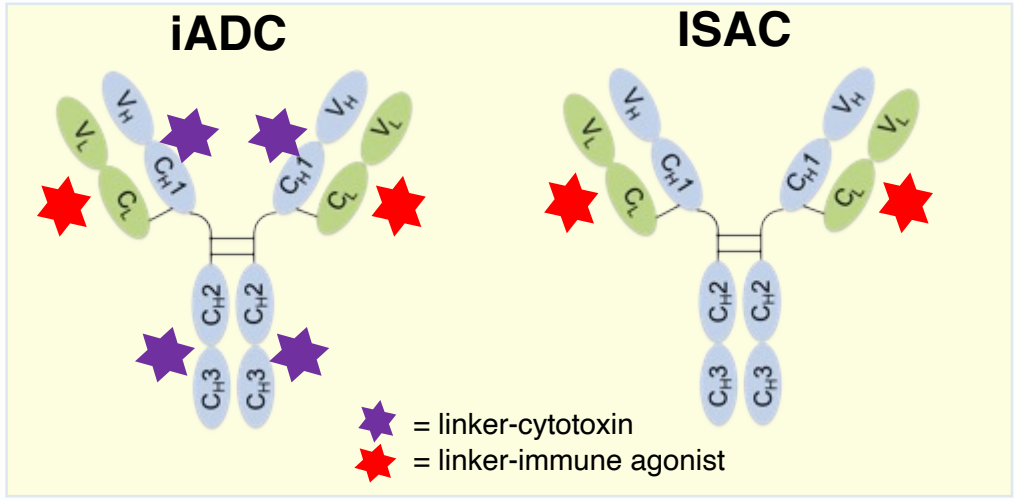
- Representative images of CD8 staining (brown) with nuclei counterstain (blue) (left) and quantification of percent CD8 positive cells (right).
- Combination treatment resulted in a striking increase in CD8 T cell infiltration into the tumor microenvironment.

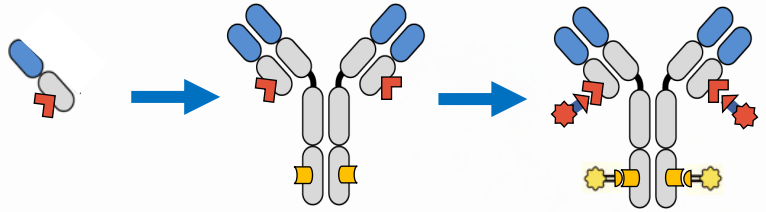
18-FR-M2

Sutro's Next Generation Tumor Targeting Immunostimulatory ADC

Off the Shelf, Systemically Administered *in situ* Immunization

- Breakthrough technology for dual conjugated immunostimulatory antibody drug conjugate
- Potential to combine immune agonists
- POC molecule enables simultaneous and precise tumor targeting of a cytotoxin and a toll-like receptor (TLR) agonist with systemic delivery
- Novel design intended to prime an adaptive anti-tumor response as a monotherapy
- Potential to reprogram the patient's tumor microenvironment and generate protective anti-tumor immunity

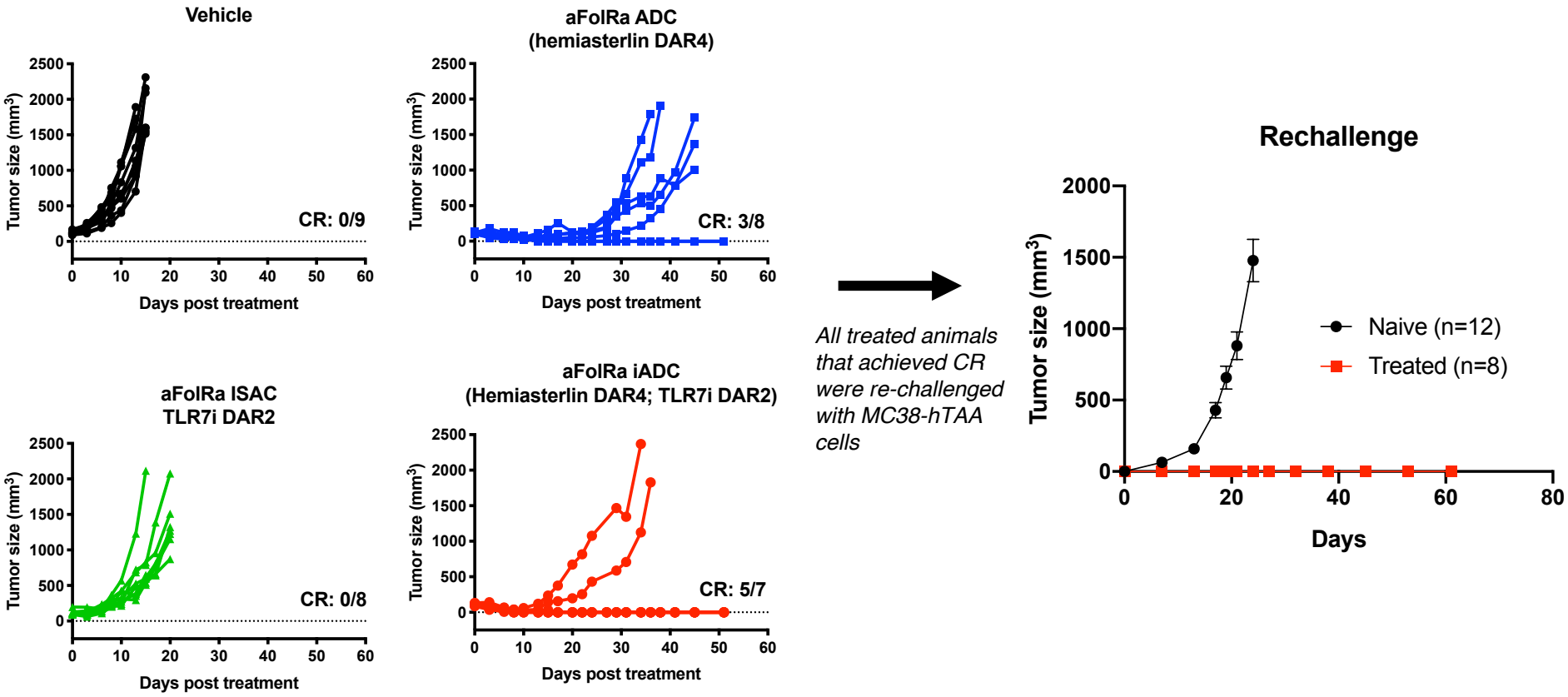




Nonnatural amino acid incorporated into a prefabricated LC	Antibody with 2 different nonnatural amino acids	One-pot conjugation with 2 orthogonal chemistries

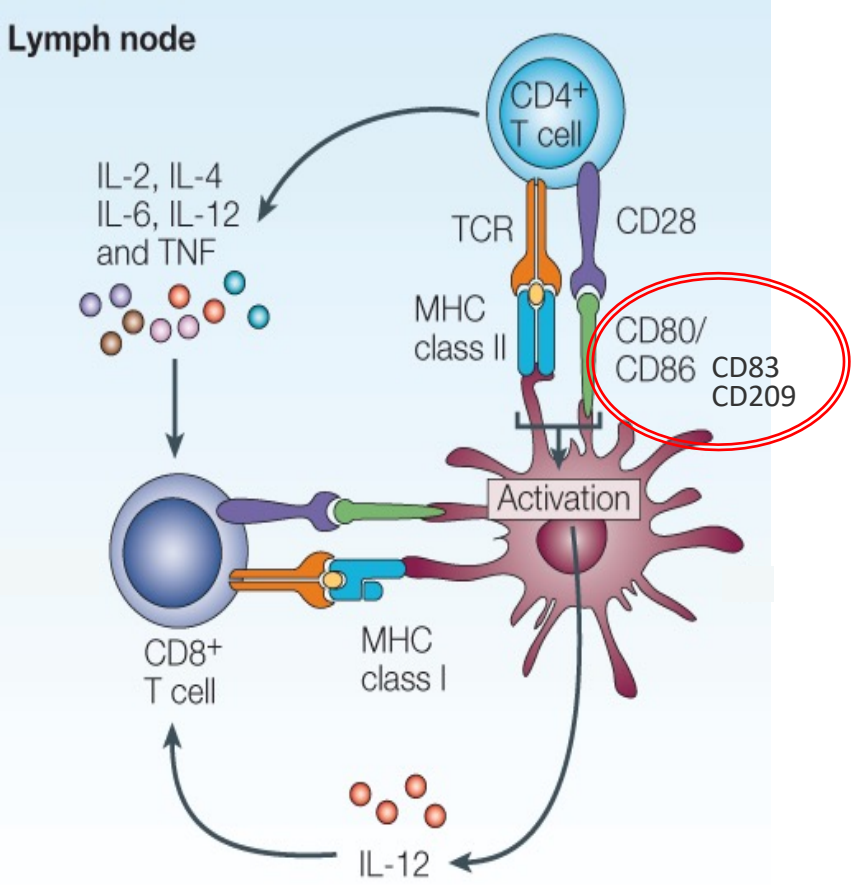
Data Presented at the World ADC Meeting in London, 3/2020

Superior Anti-Tumor Memory Response with Single Dose of iADC Molecule



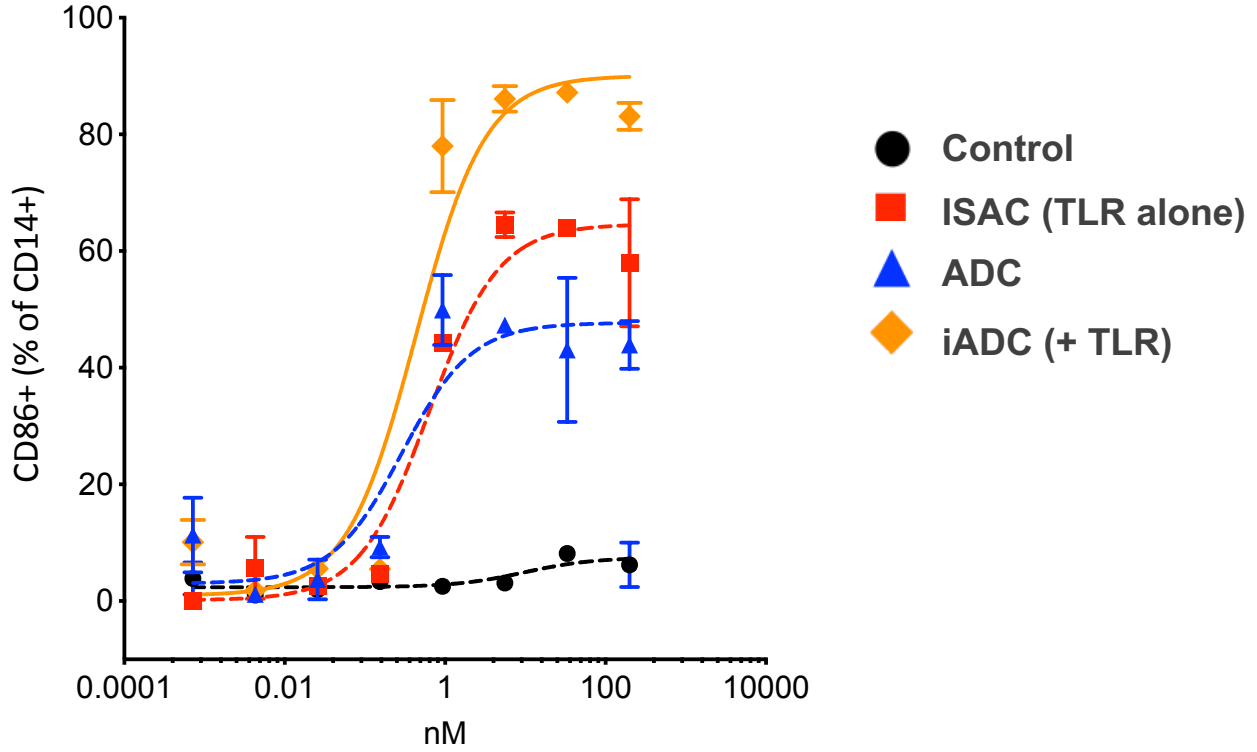
iADC showed enhanced activity vs. ADC alone based on higher number of animals with complete responses and durable anti-tumor immunity

Immune Agonist Increases Presence of Activated Monocytes



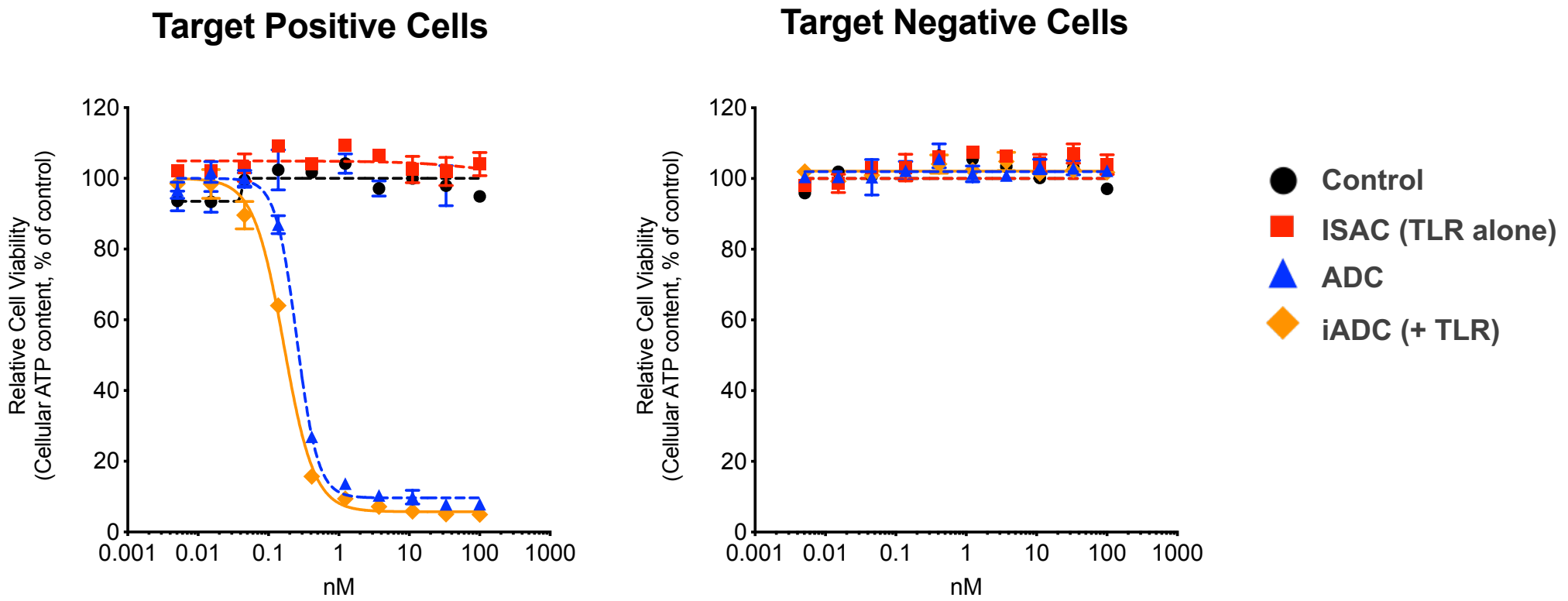
Adapted from Nature Reviews Immunology 4, 941-952 (December 2004)

iADC induces APC activation in a Co-culture System (Human immune cells + TAA Positive tumor cells)



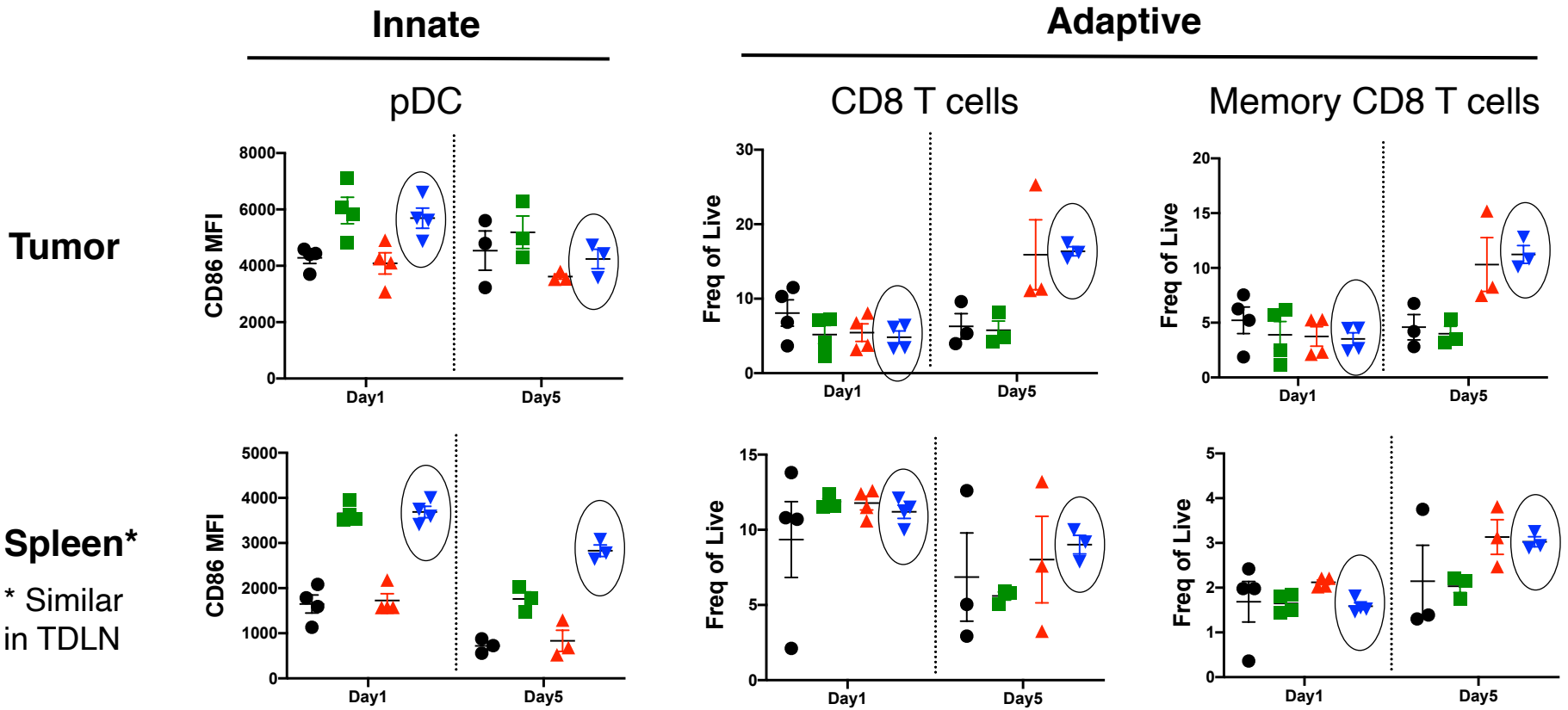
- Both ADC and iSAC induces APC activation
- iADC induces enhanced stimulation compared to ADC and iSAC

iADC Combination Molecule Maintains TAA Dependent Cell Killing

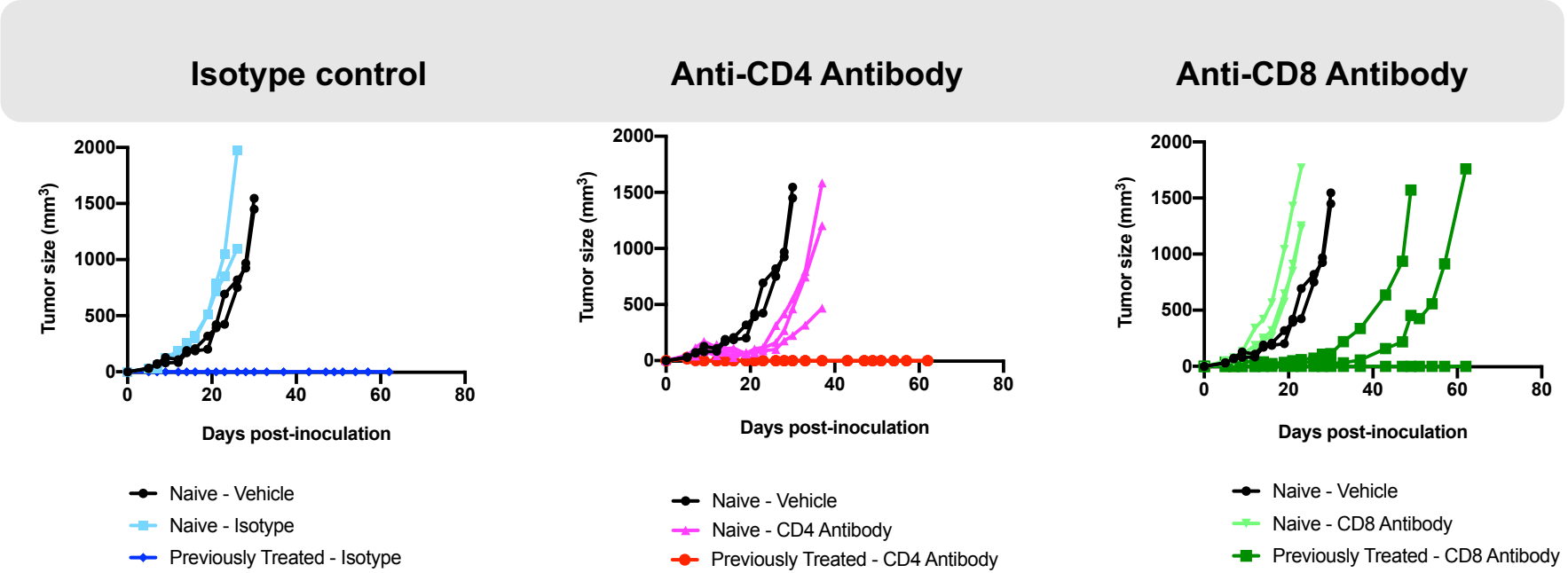


- iADC demonstrates similar potent cell killing as ADC
- iSAC conjugated to immune agonist alone does NOT induce tumor cell killing
- Cell killing is dependent on tumor associated antigen (ADC target)

Immune Conjugates Engage Innate and Adaptive Immune Compartments in MC38 Tumor Bearing Mice



Immunodepletion Suggests CD8+ T Cells Play a Key Role in Mediating iADC Induced Anti-Tumor Immunity



- Without CD8+ T cells, tumor growth was restored after rechallenge in 2/3 animals previously treated with iADC
- Protective immunity was maintained in previously treated mice that received isotype control and anti-CD4+ blocking antibodies

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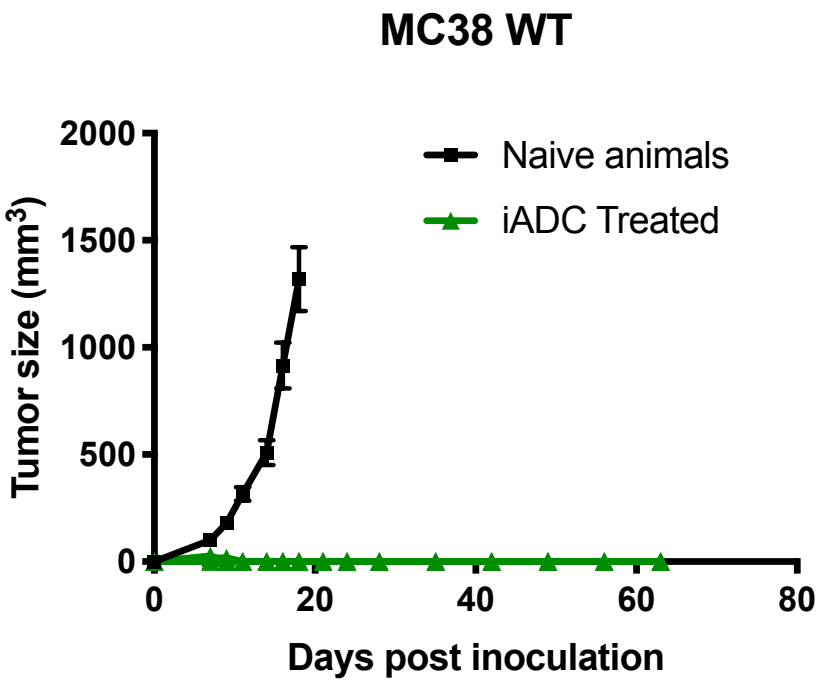
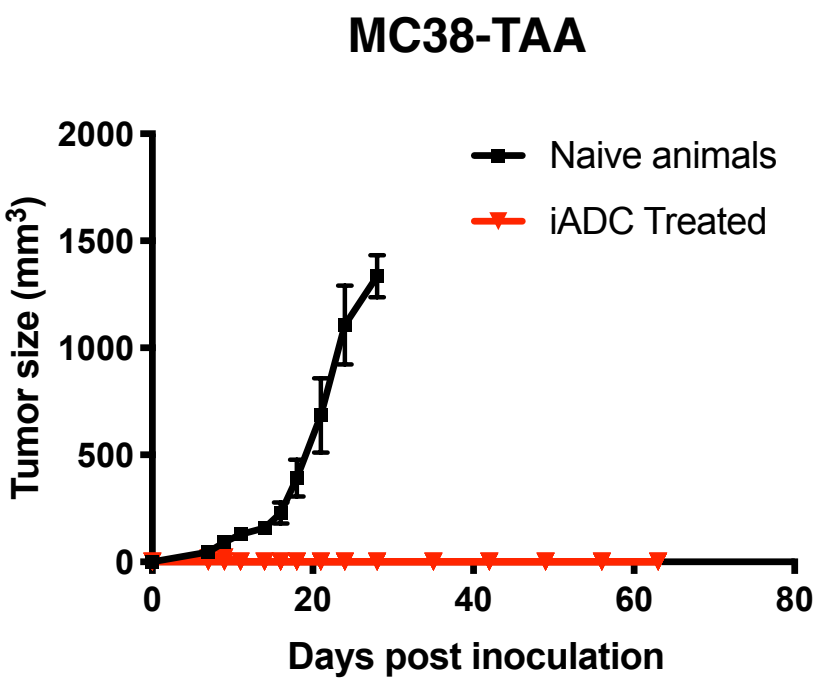
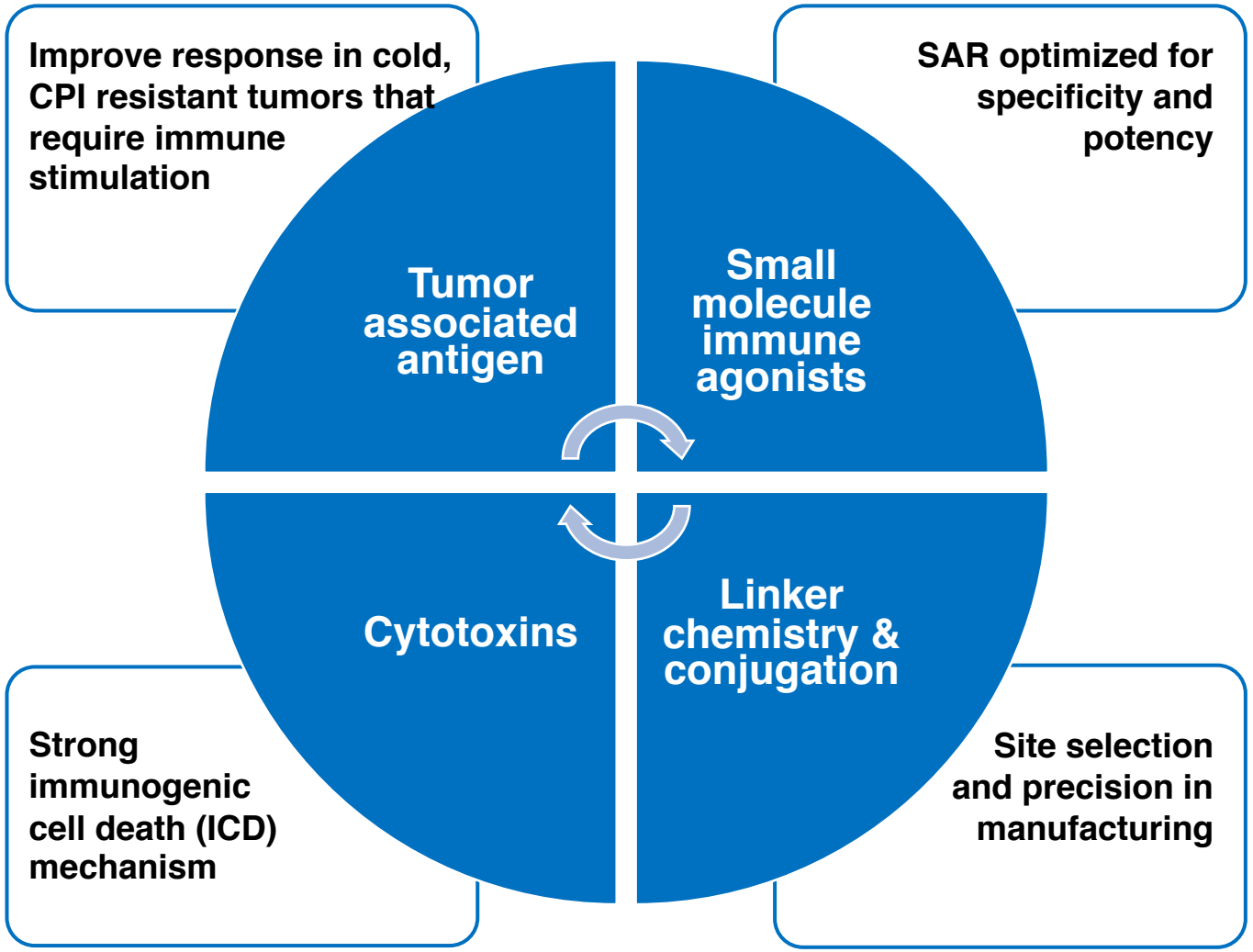
iADC Exhibits Durable Anti-Tumor Immunity and Evidence of Epitope Spreading





Animals treated with iADC develop durable anti-tumor immunity against MC38 parent and MC38-TAA expressing tumors

Designing Novel and Precise Immunostimulatory ADCs



Sutro platform allows **rapid and iterative design and testing**, brings SAR drug design to complex biologics

Toolbox of payloads to build **optimized targeted molecules**

Goal to drive tumor immunity through engagement of innate and adaptive responses that lead to **protective durable responses in cold tumors**