Precision Immunotherapy for Oncogenic Driver Mutations

Non-Confidential Corporate Presentation

May 2024

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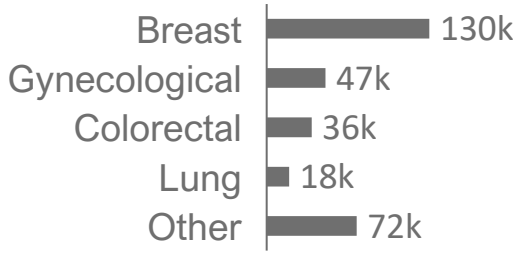
RIGHT TARGETS. RIGHT CELLS. RIGHT PLACE.

We target oncogenic driver mutations to deliver transformative therapies for patients with solid tumors

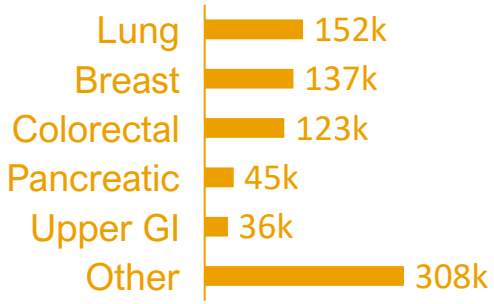
- Leader in Precision Immunotherapy - developing a deep pipeline of TCR-based therapies that have first-in-class / best-in-class potential
- Focus on targeting the most frequent oncogenic driver mutations in solid tumors; including KRAS, NRAS, P53, and PIK3CA
- Proprietary platform technologies to build potent and persistent T cell therapies and generate bispecific T cell Engagers
- Science-driven team and founders focused on continued innovation to develop novel therapies with curative potential

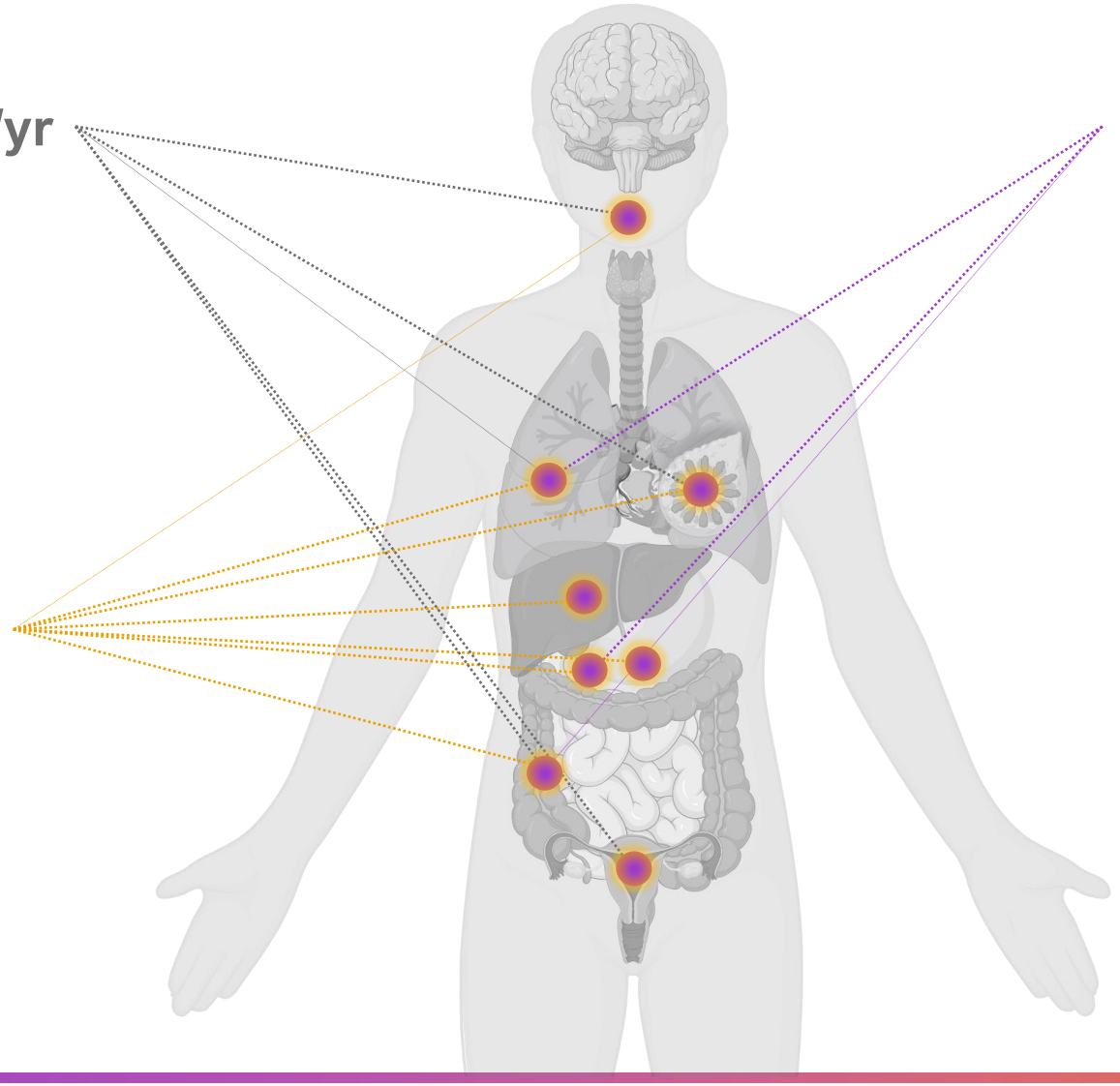
Driver Mutations are Ubiquitous but Underutilized Targets for Treating Solid Tumors

PIK3CA 303k Patients/yr

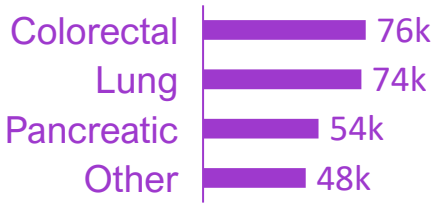


TP53 801k Patients/yr





KRAS 253k Patients/yr



Affini-T targets the most prevalent oncogenic drivers across solid tumors

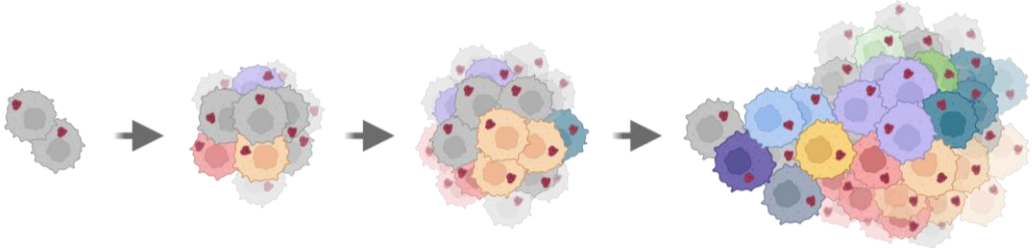
2030 US Incidence. Source: WHO IARC GCO / AACR Genie

Targeting Oncogenic Driver Mutations Like KRAS Strikes at the Core of Tumor Biology

Cancer cells are *dependent* on oncogenic drivers for survival and proliferation

Oncogenic drivers are ubiquitously expressed in otherwise heterogeneous tumors

KRAS mutations are present in up to 30% of solid tumor malignancies



Solid tumors are heterogenous, but oncogenic driver mutations are conserved

Targeting KRAS has been clinically de-risked by approved G12C therapies, but depth and duration of response fall short and unmet need remains high

Prior et al. Cancer Res (2020)

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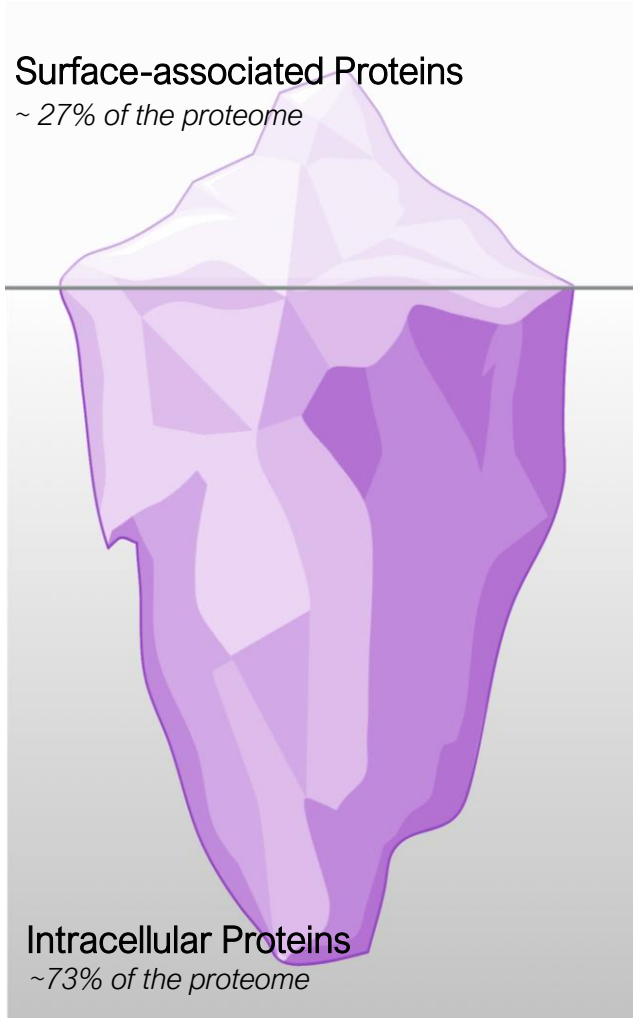
TCRs Enable Targeting of Intracellular & Hard-to-Drug Oncogenic Drivers



Conventional CAR cellular therapies & ADCs are limited to targeting surface proteins

TCR-based therapies enable precise targeting of intracellular proteins presented as epitopes on the cell surface

This allows direct targeting of hard-to-drug oncogenic drivers

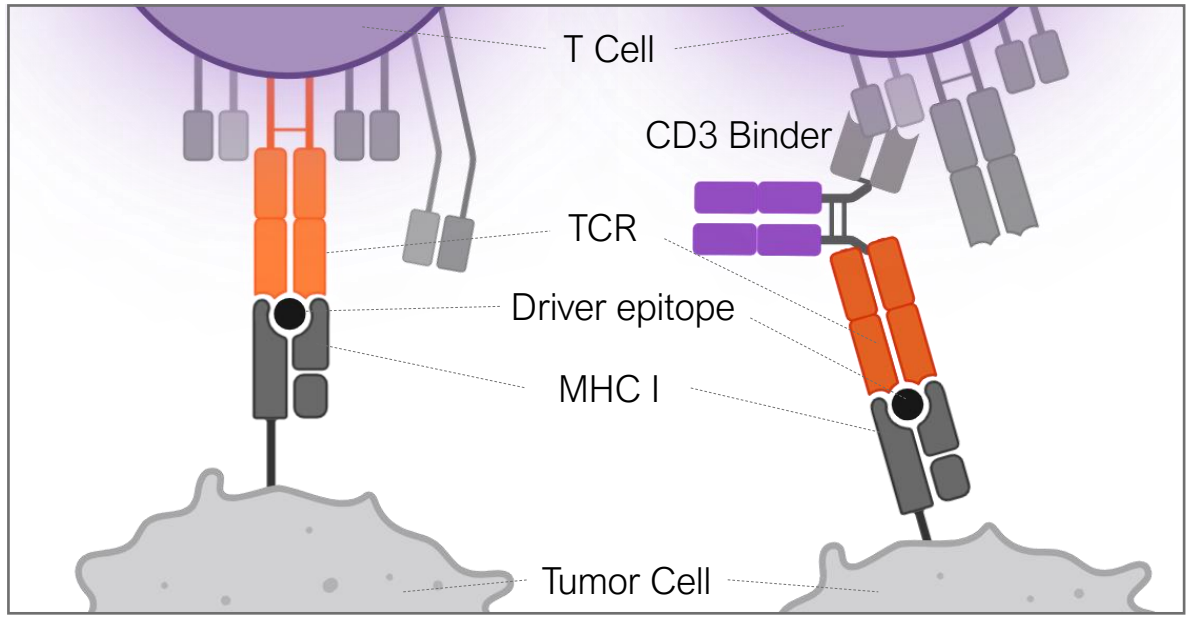
Klebanoff & Chandran: Immunological Reviews, Volume: 290, Issue: 1, Pages: 127-147, First published: 29 July 2019, DOI: (10.1111/imr.12772)

CAR: Chimeric Antigen Receptor
ADC: Antibody Drug Conjugate

Affini-T is Developing Two TCR-Based Therapeutic Modalities

TCR-T Cell Therapies

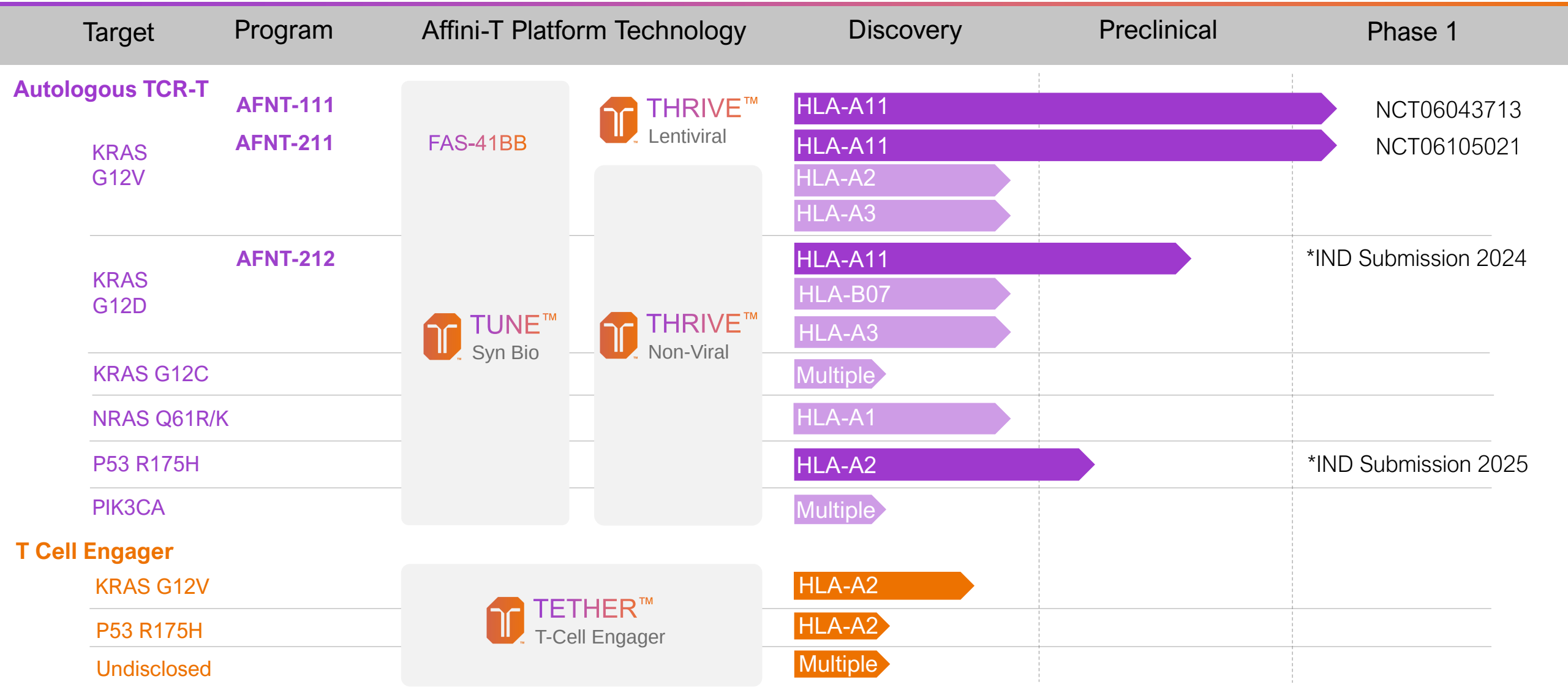
T cells engineered with a transgenic TCR that allows recognition of specific driver mutant epitopes



Bispecific T Cell Engagers

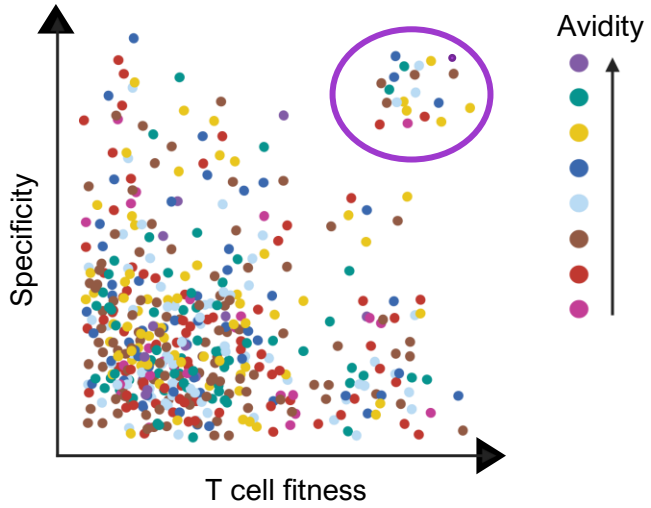
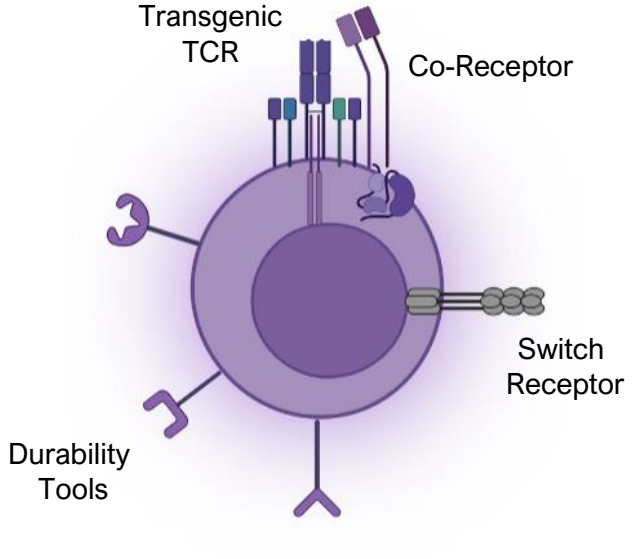
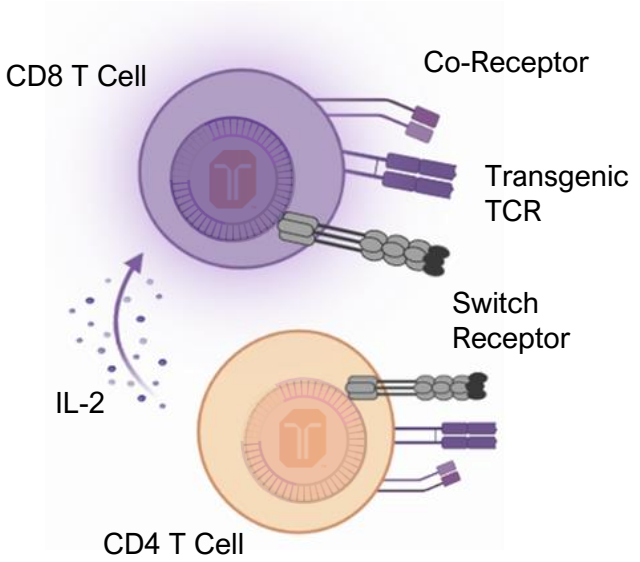
Bispecific biologics combining a TCR moiety to recognize the driver mutant epitope with a CD3 binding moiety to recruit endogenous T Cells

First-In-Class Potential for Multiple Products Targeting Oncogenic Drivers in Solid Tumors



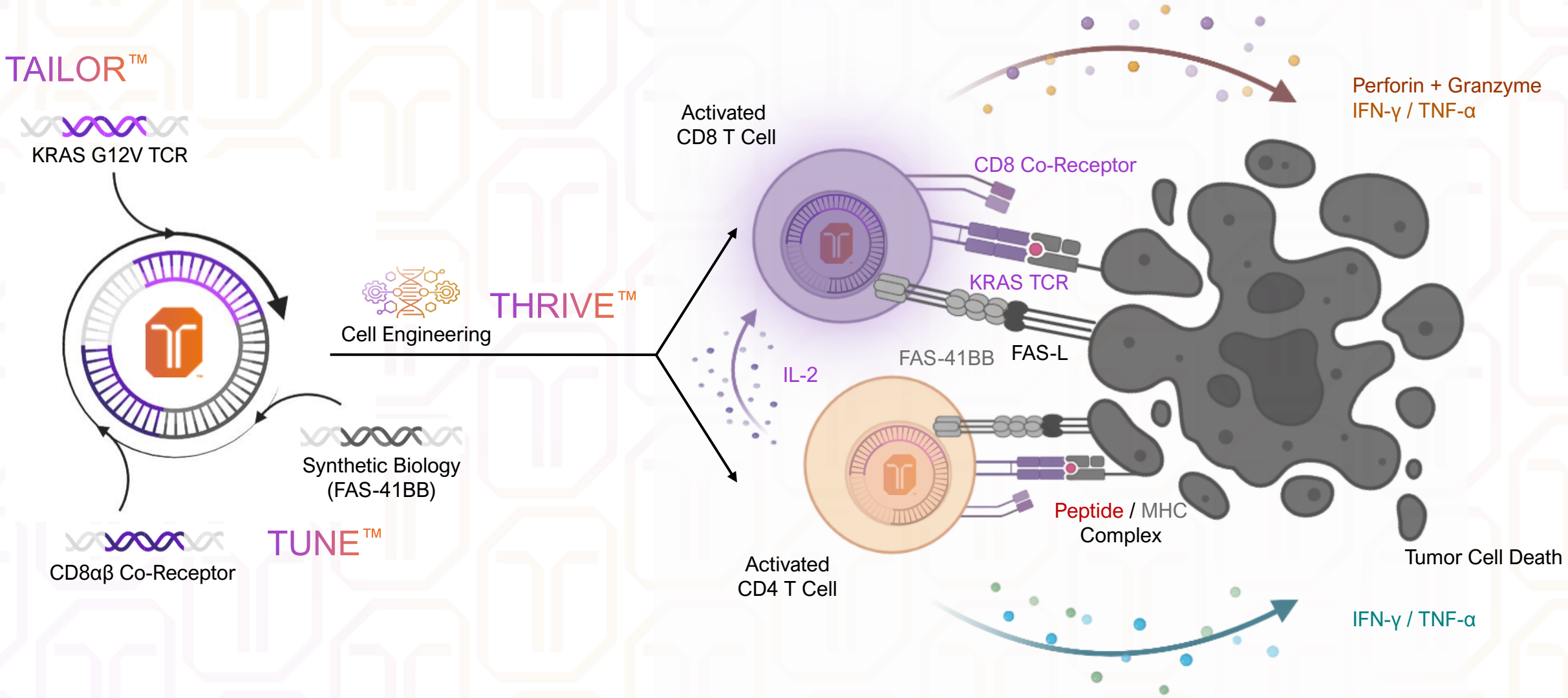
*Planned submission dates

Affini-T Platform Technologies Enable the Generation of Potent & Tolerable TCR-T Cells

TAILOR™ TCR Discovery	TUNE™ Synthetic Biology	THRIVE™ Engineering and Manufacturing
		
Predictive algorithms & machine learning identify highly functional and specific TCRs against diverse targets	Program cell persistence in the TME to enhance durability with switch receptors (eg Fas-41BB), co-receptor and other armoring technologies	Scalable manufacturing with gene editing technologies to generate a robust engineered product with > 95% central memory / stemness phenotype

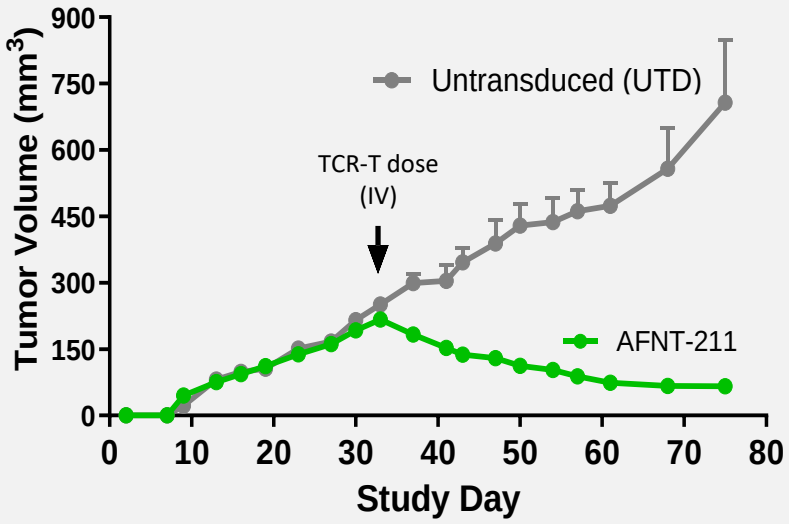
TME: Tumor Microenvironment

AFNT-211: A11 KRAS G12V TCR Engineered T Cells + FAS-41BB Durability Switch Receptor

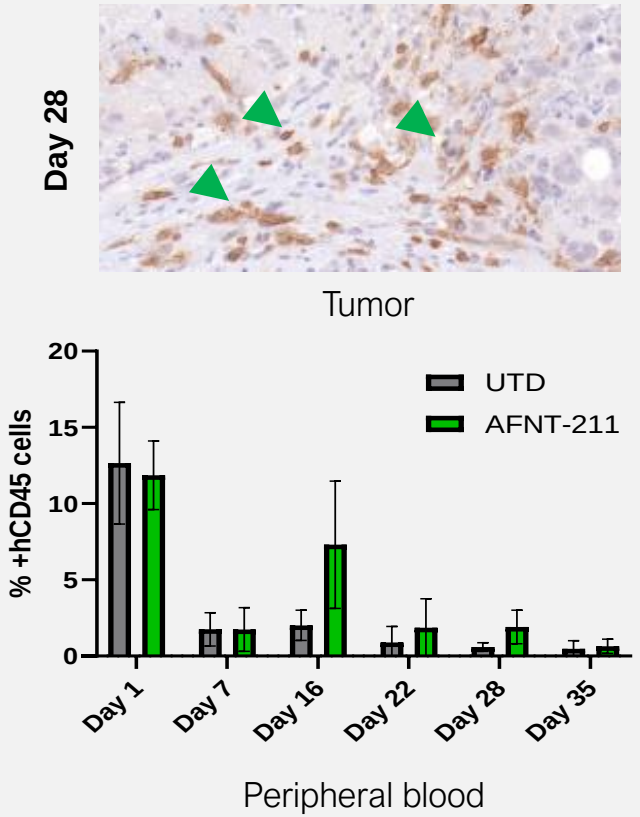


AFNT-211 Differentiated Switch Receptor Armoring Drove Antitumor Activity in Preclinical Models

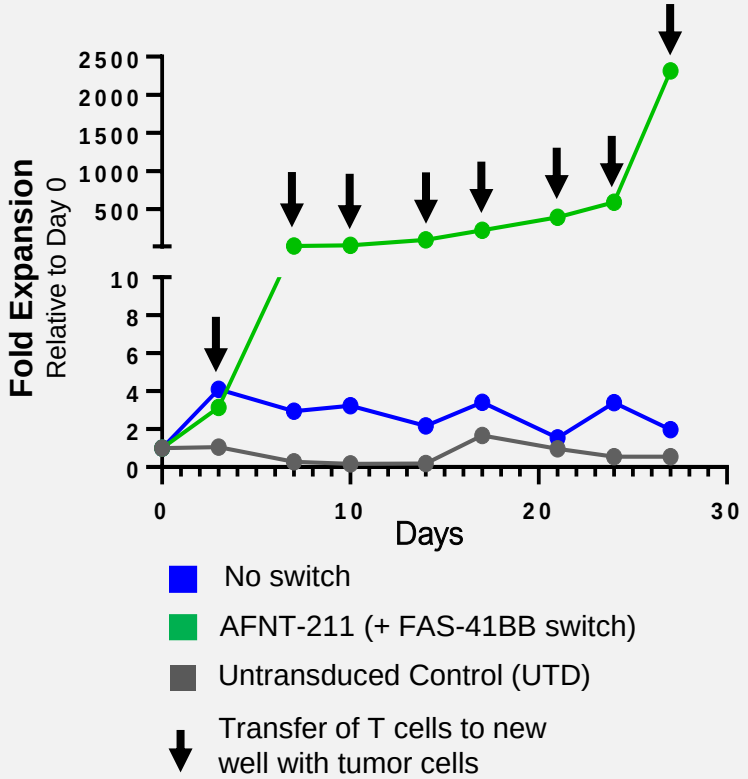
AFNT-211 eradicated large, established tumors that have challenged other therapies



AFNT-211 cells trafficked & persisted in tumors, killed cancer cells, & reached peripheral blood for immune surveillance



AFNT-211 Fas-41BB switch induced dramatic AFNT-211 cell expansion in presence of tumor



AFNT-211 Clinical Development Plan

Phase 1a Basket Trial Dose Finding
Sample size N=15-20
~10 US clinical trial sites

KRAS G12V-mutated tumors
& HLA-A*11:01 allele

Non-small-cell lung (NSCLC) | Colorectal (CRC) | Pancreatic (PDAC) | Tissue Agnostic

Phase 1b/2 Expansion Cohorts
Sample size up to N=20 per indication

- NSCLC → 2nd/3rd line
- CRC → 2nd/3rd line
- PDAC → 2nd/3rd line
- Tissue-agnostic → 2nd/3rd line

Registration Study
Expand trial sites to 35-40 in US/EU5/CAN

- Continued FDA interactions for single arm study design
- Aim for approval based on ORR & DoR data
- Target sample size N=~80 for potential indication

Optimal Biological Dose / Proof of Clinical Concept

Interim Analysis

ORR & DoR

**Excluding primary brain tumors*

ORR – Overall Response Rate
DoR – Duration of Response

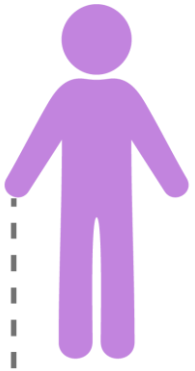
AFNT-211 Patient Journey

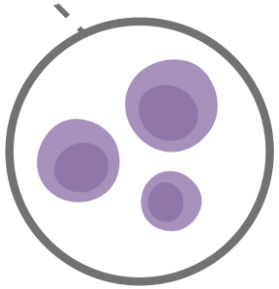
Pre-screen

- *KRAS G12V*
- *HLA-A*11:01*

Eligibility Screen

Leukapheresis



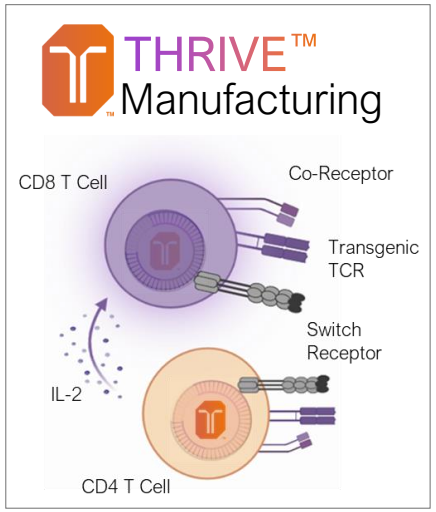


Lymphodepletion**

6 Day LDC

elevatebio

~10-day manufacturing process +
~6-day QC testing



AFNT-211 TCR-T cell product infusion

Patient Monitoring

Transition to long term follow up

Targeting ~22-day vein-to-vein time

**Lymphodepleting chemotherapy (LDC) with cyclophosphamide 500mg/m2/day and fludarabine 30mg/m2/day intravenously (I.V.) on Days -6 to -3, (4 days),

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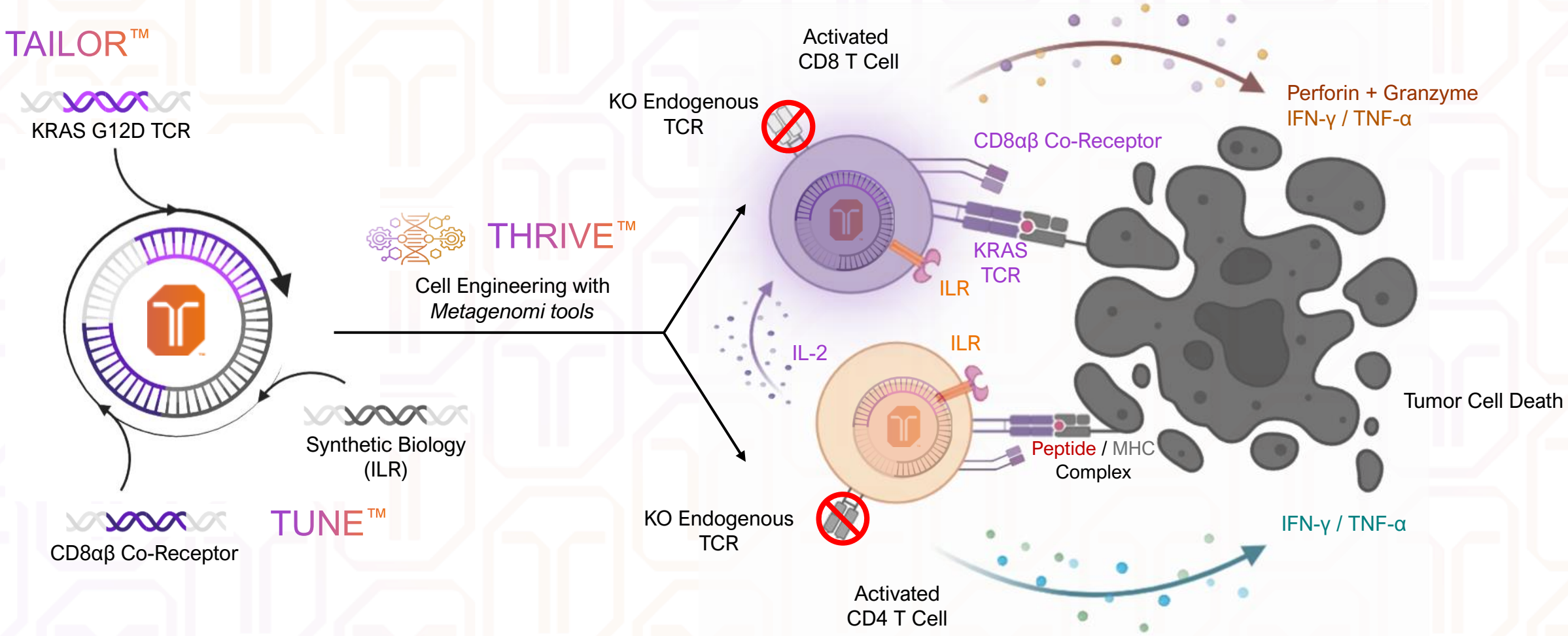
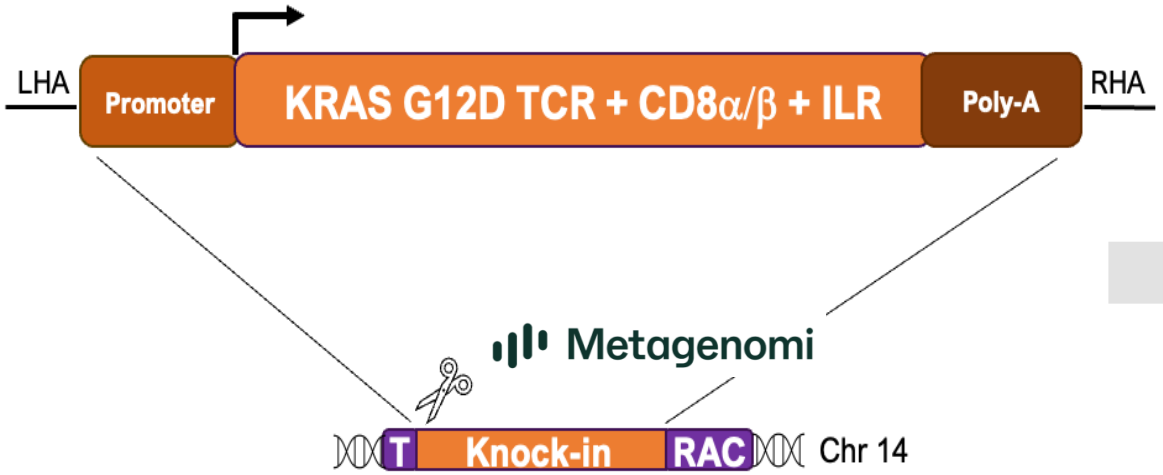
AFNT-212: A11 KRAS G12D TCR Engineered T Cells + Durability Switch Receptor + Gene Editing



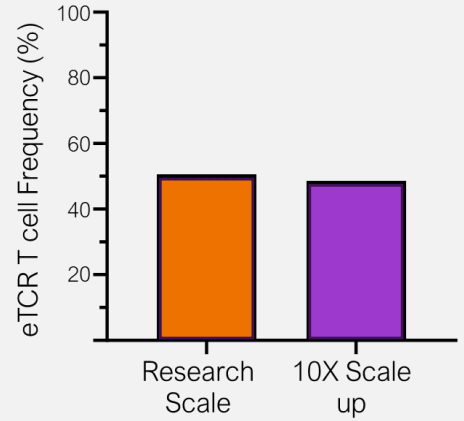
THRIVE™ High Efficiency Non-viral Delivery of Large Transgenes at cGMP Scale



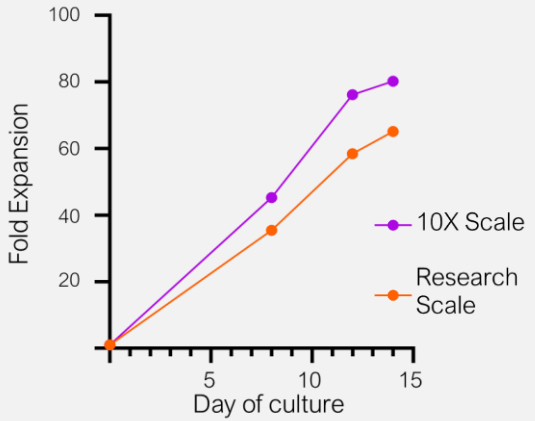
Transgenes inserted within the endogenous TRAC gene via CRISPR/Cas driven homology mediated repair

TRAC-inserted knock-in of 6.3kb 5 gene cassette

Transgene Integration Frequency



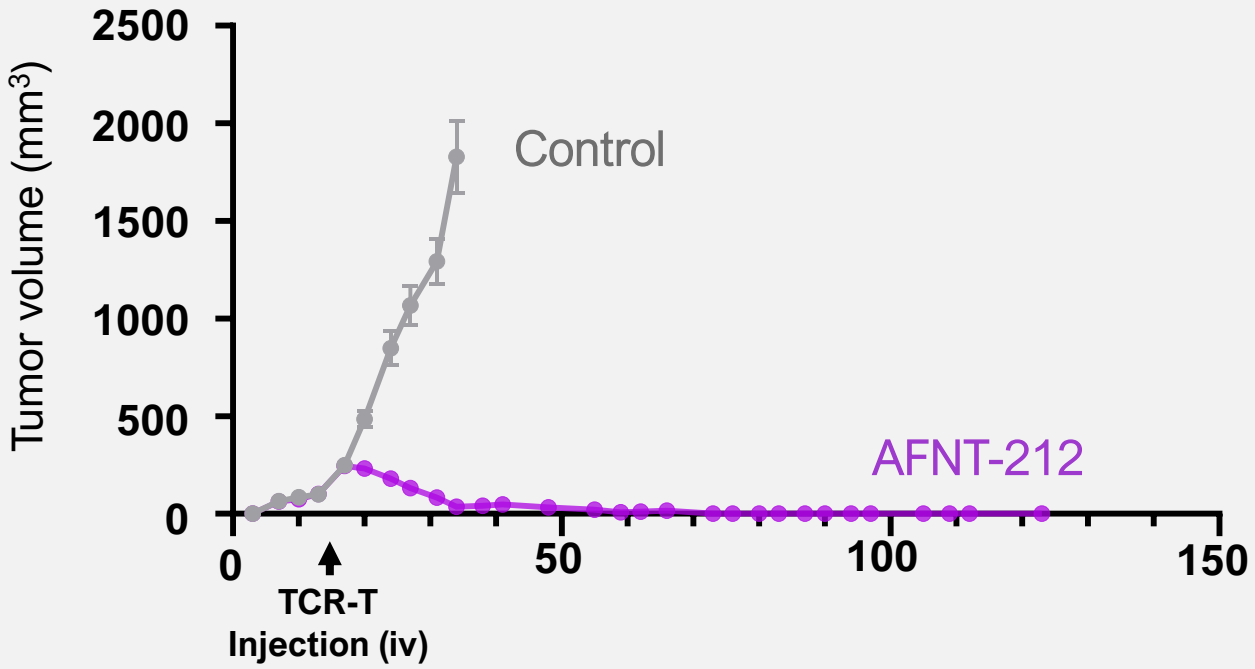
Expansion Kinetics



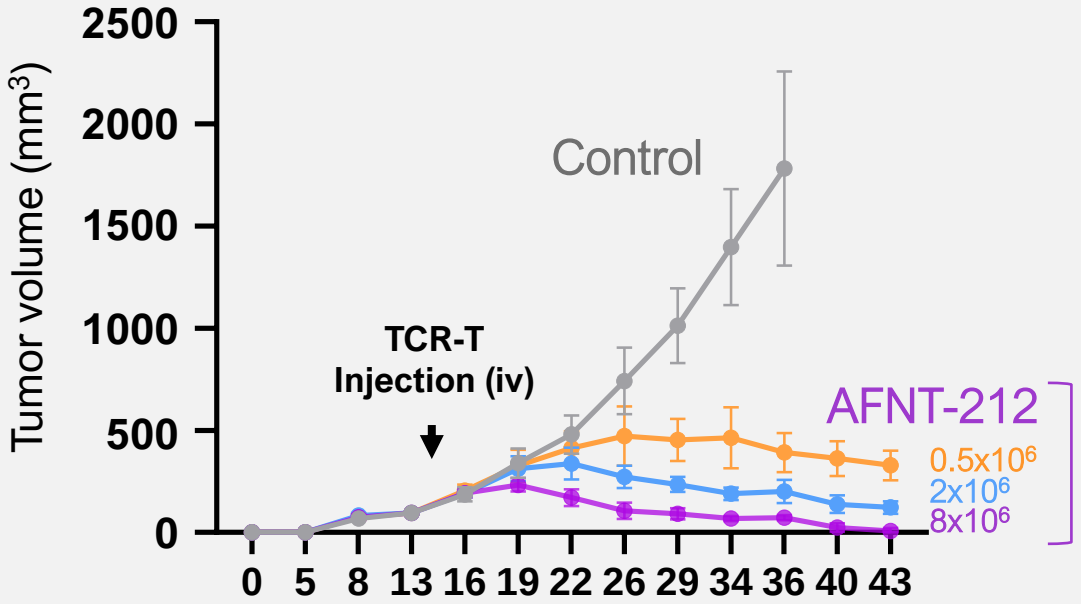
KI = Knock-In

AFNT-212 Showed Robust Anti-tumor Activity in Established Tumor Mouse Models *in vivo*

AFNT-212 T cells induced complete remission for over 120 days



AFNT-212 T cells drove a dose-dependent anti-tumor response

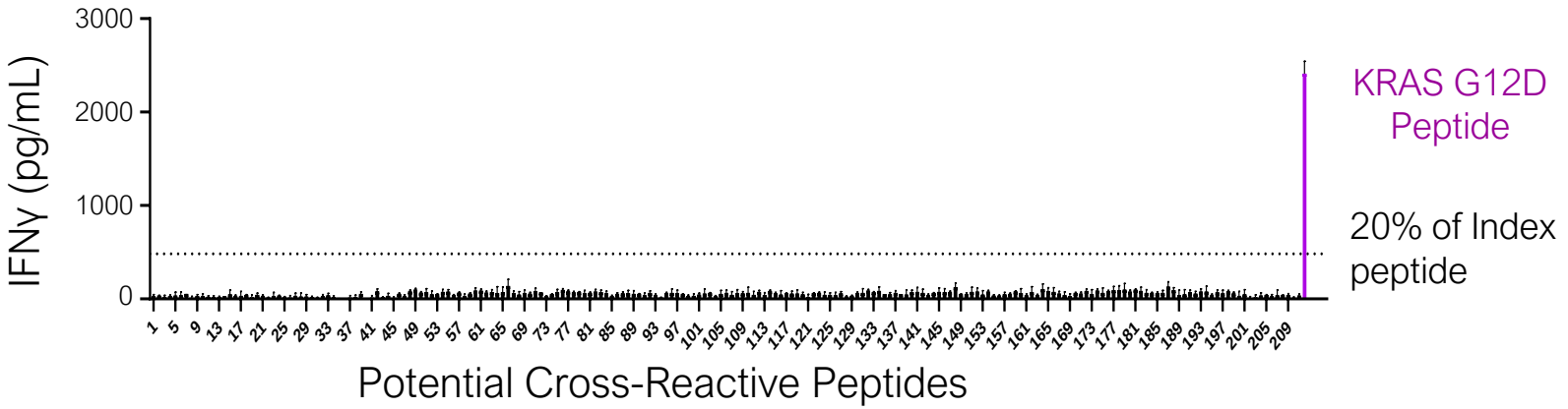


(CL-40 colorectal model)

AFNT-212 Exhibited Low Risk of Cross-Reactivity

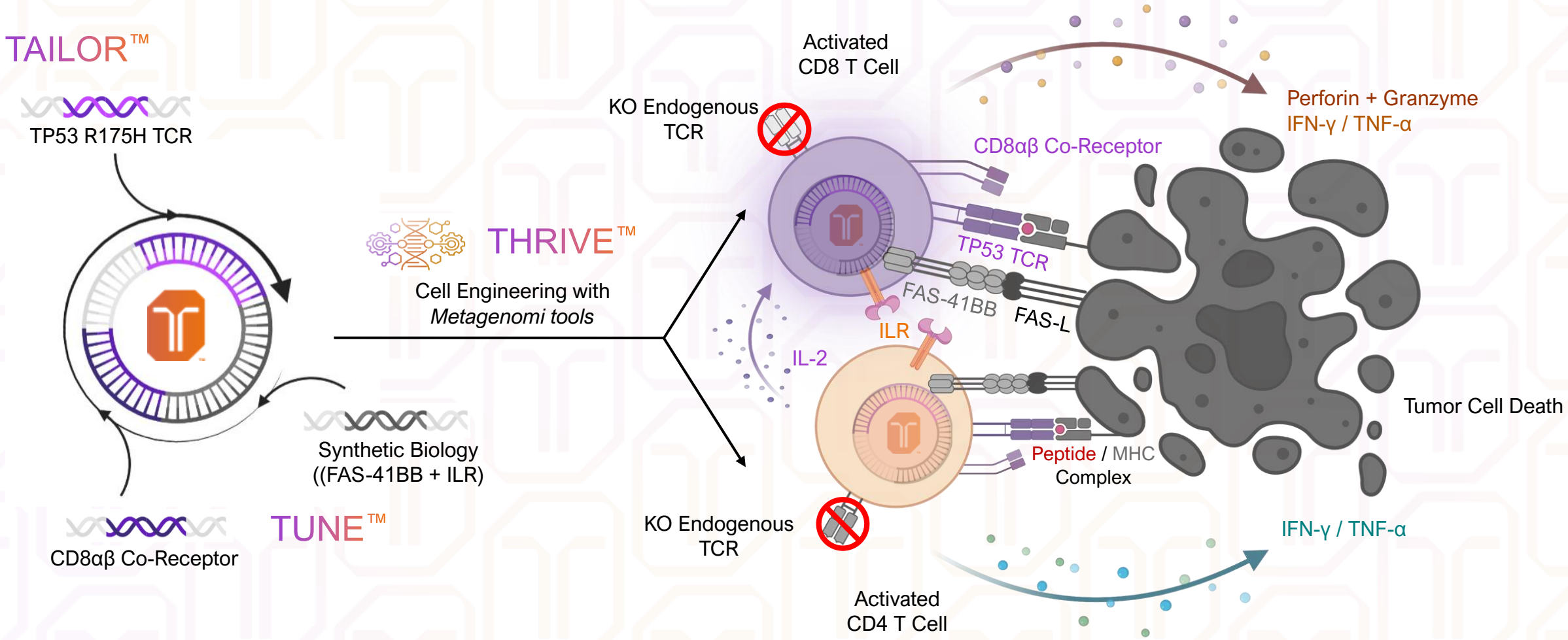
Validation of Putative Cross-Reactive Peptides

Potential Cross-Reactive Peptides Identified by X-Scan	Validated Cross-Reactive Peptides
211	0

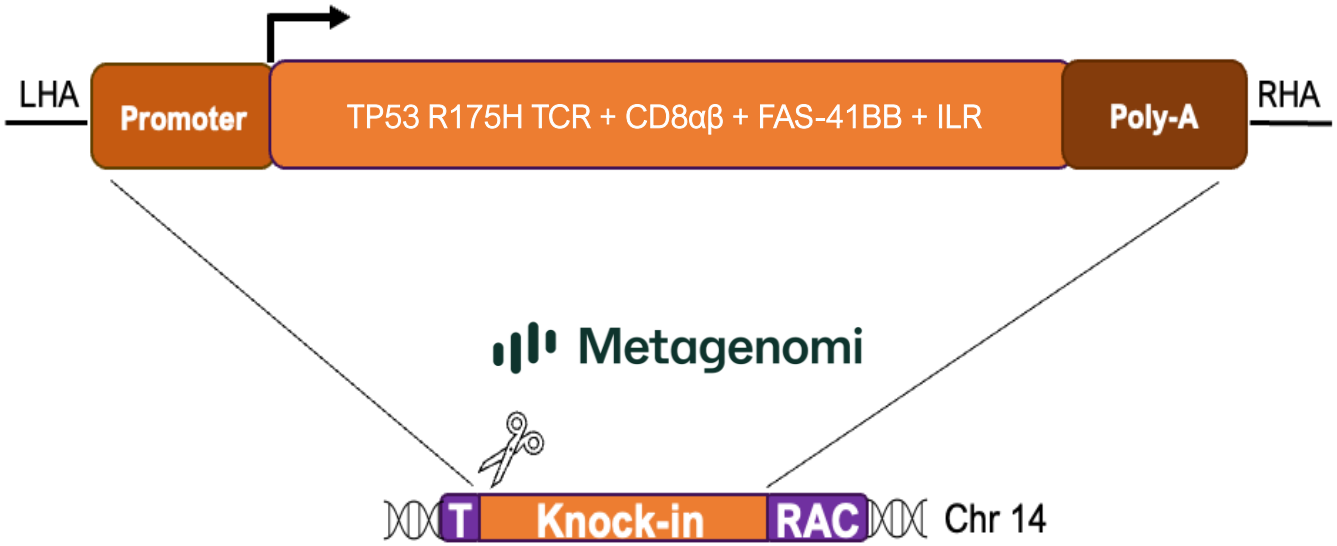


No cross-reactive self-peptides of concern identified out of 211 potential peptides identified by X-Scan

A2 TP53 R175H TCR Engineered T Cells + 2 Durability Switch Receptors + Gene Editing



THRIVE™ High Efficiency Non-viral Delivery of Large Transgenes at cGMP Scale



Transgenes inserted within the endogenous TRAC gene via CRISPR/Cas driven homology mediated repair

TRAC-inserted knock-in of 7 kb 6 gene cassette

KI = Knock-In

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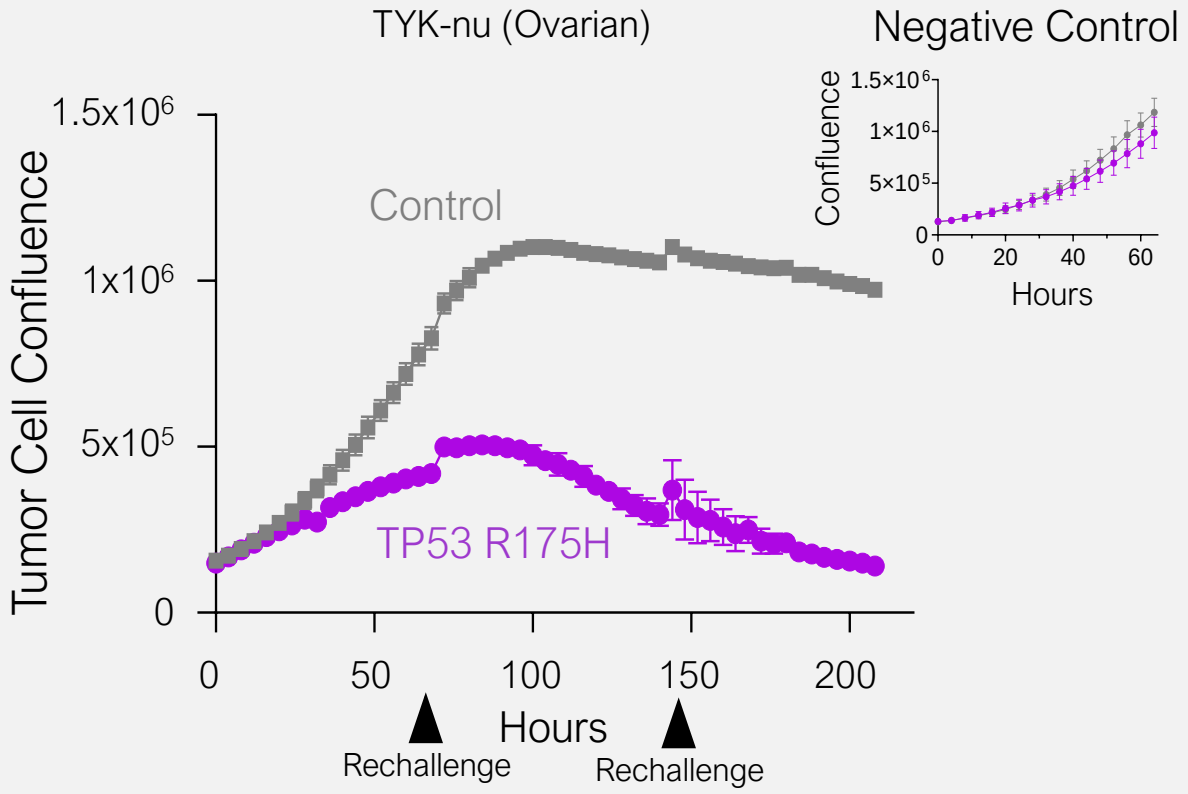
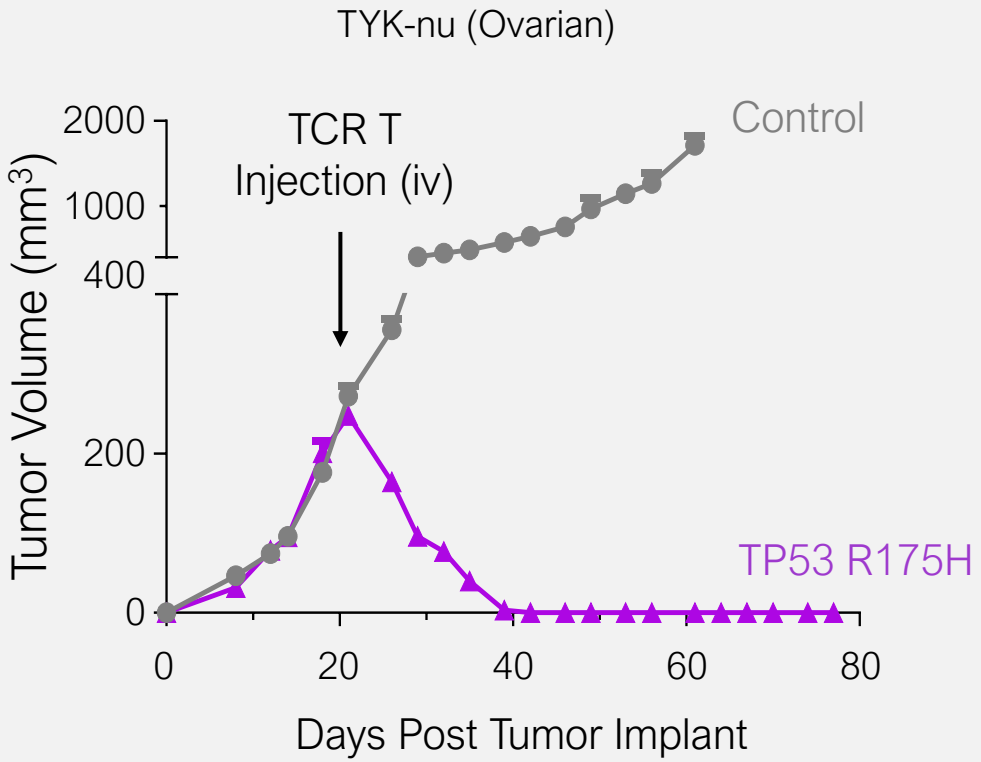
A2 TP53 R175H TCR-T Showed Robust Preclinical Tumor Cell Control *In Vitro* and *In Vivo*

In Vitro



TP53 R175H TCR-T cells controlled tumor proliferation even following multiple re-challenges

In Vivo



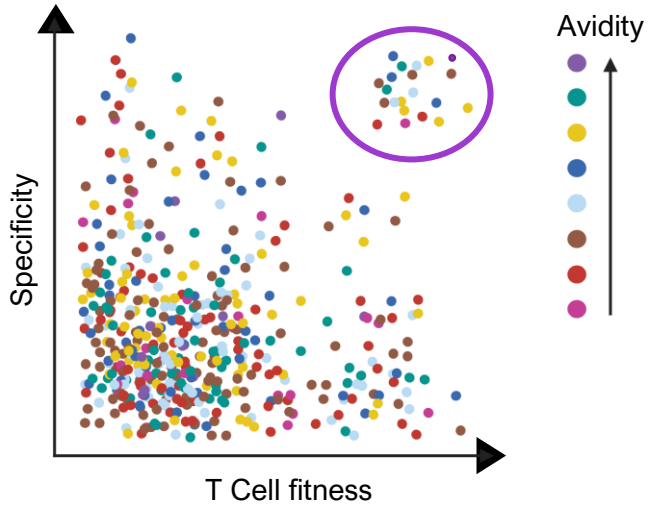
TP53 R175H TCR-T drove complete responses even against large established tumors

TETHER™ T cell engager Highlights

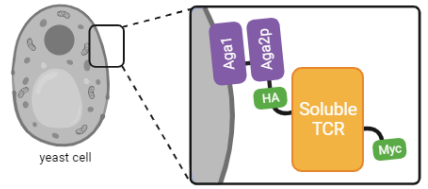
Affini-T Platform Technologies Enable the Generation of Highly Specific & Active T Cell Engagers

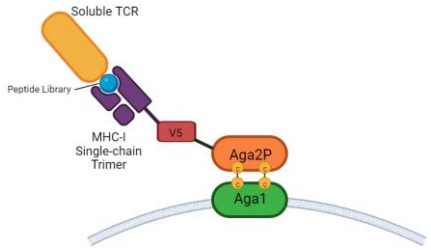
1 TAILOR™ TCR Discovery

- High throughput screening, predictive algorithms, and machine learning
- Generate highly functional and tolerable TCRs against diverse targets



2 Affinity Maturation



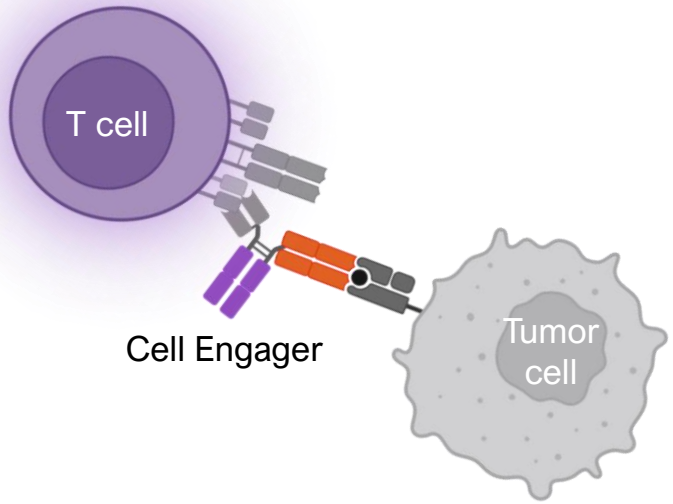


Yeast Display Modalities

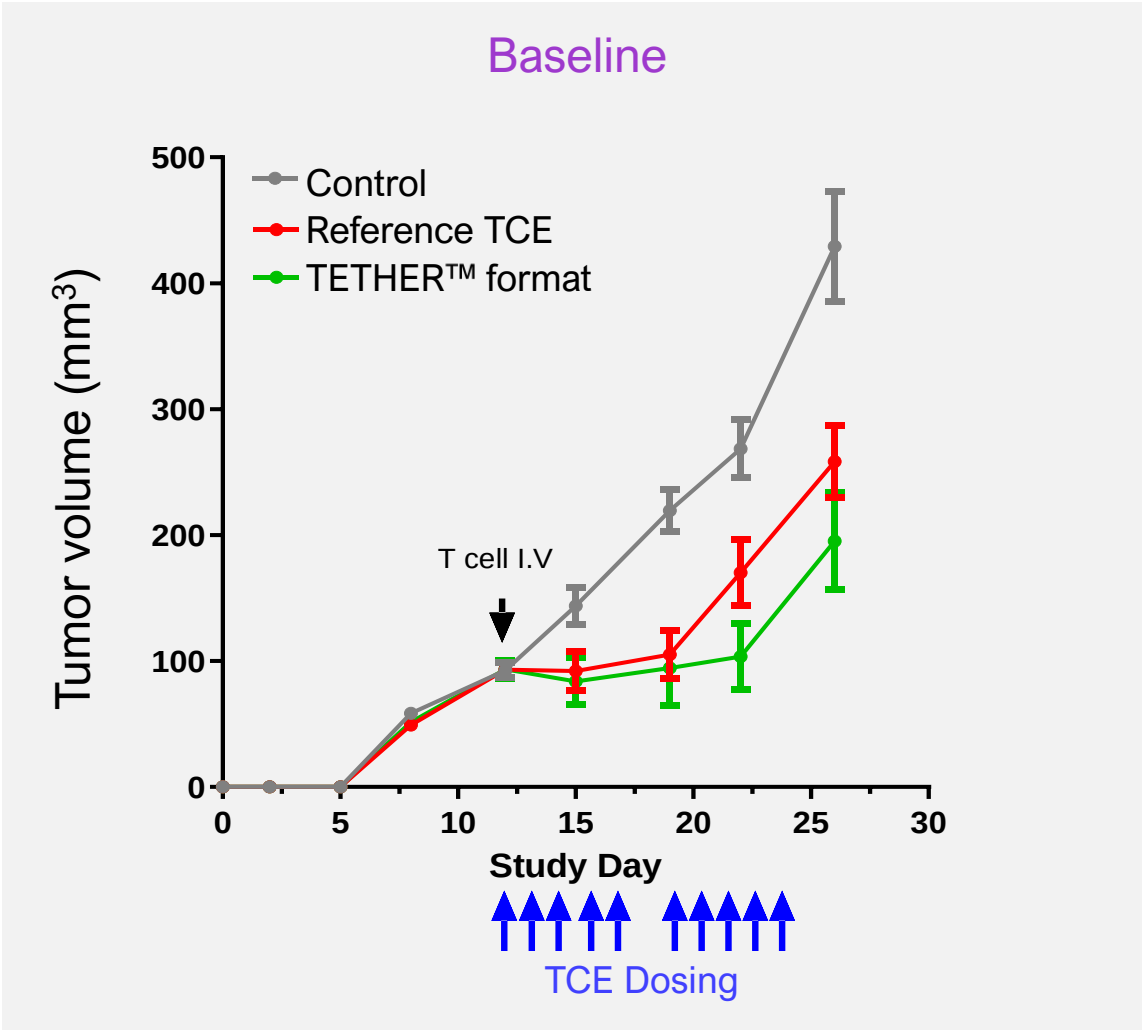
- Libraries to identify high affinity TCRs
- Libraries for specificity screenings

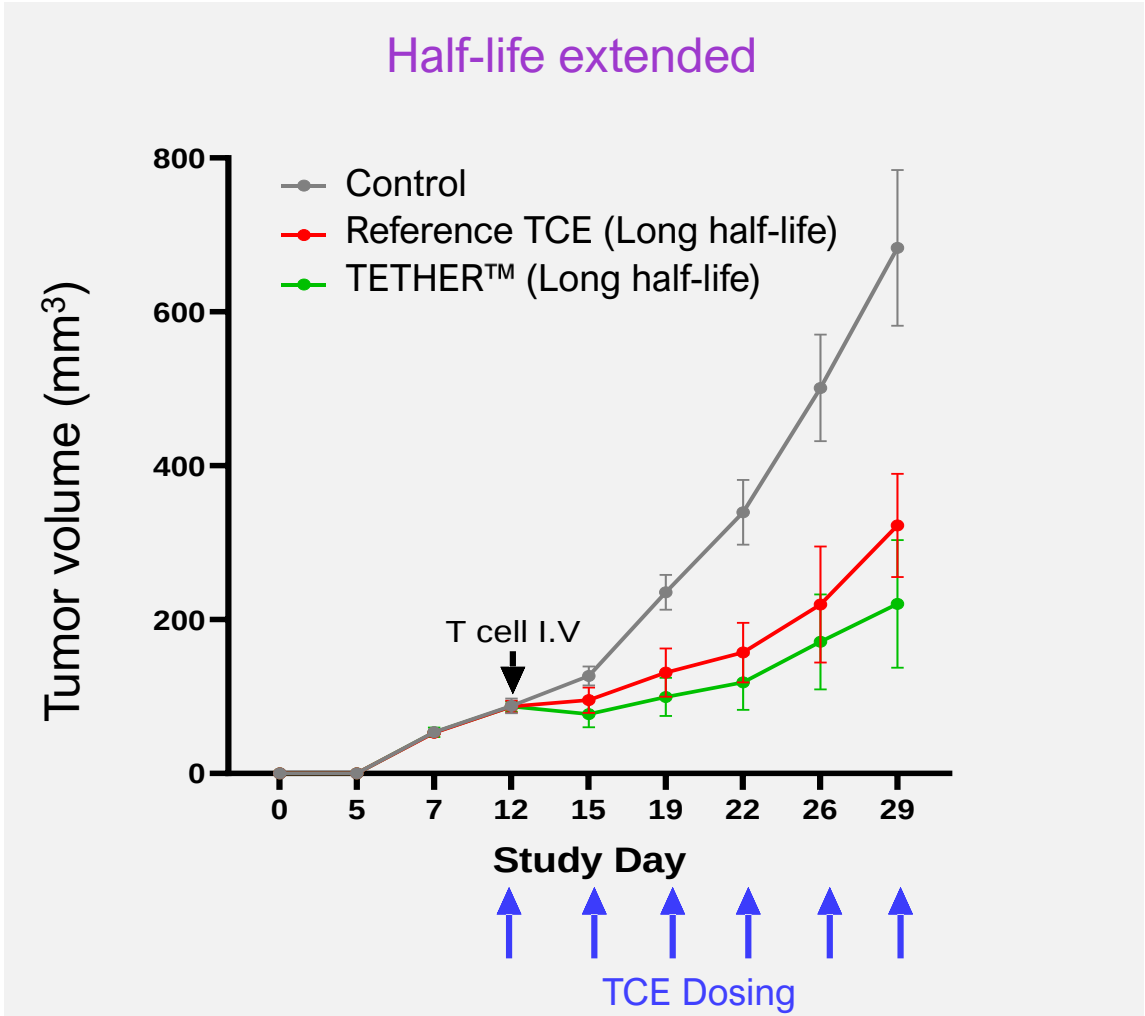
3 TETHER™ T Cell Engagers

- Affinity matured TAILOR™ TCRs with high specificity and affinity
- Balanced CD3 binders for optimal T cell engagement
- Bispecific T cell engager format with long half-life



TETHER™ T Cell Engagers Outperformed Reference Product Format *in vivo*

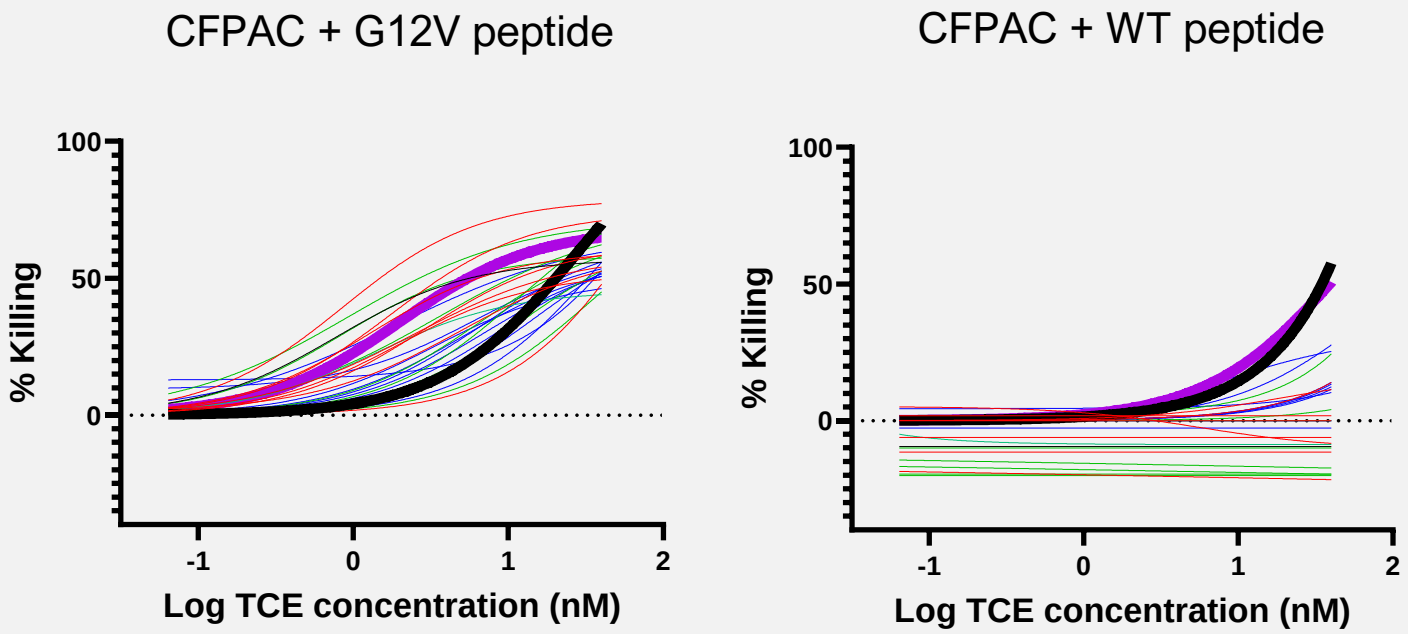




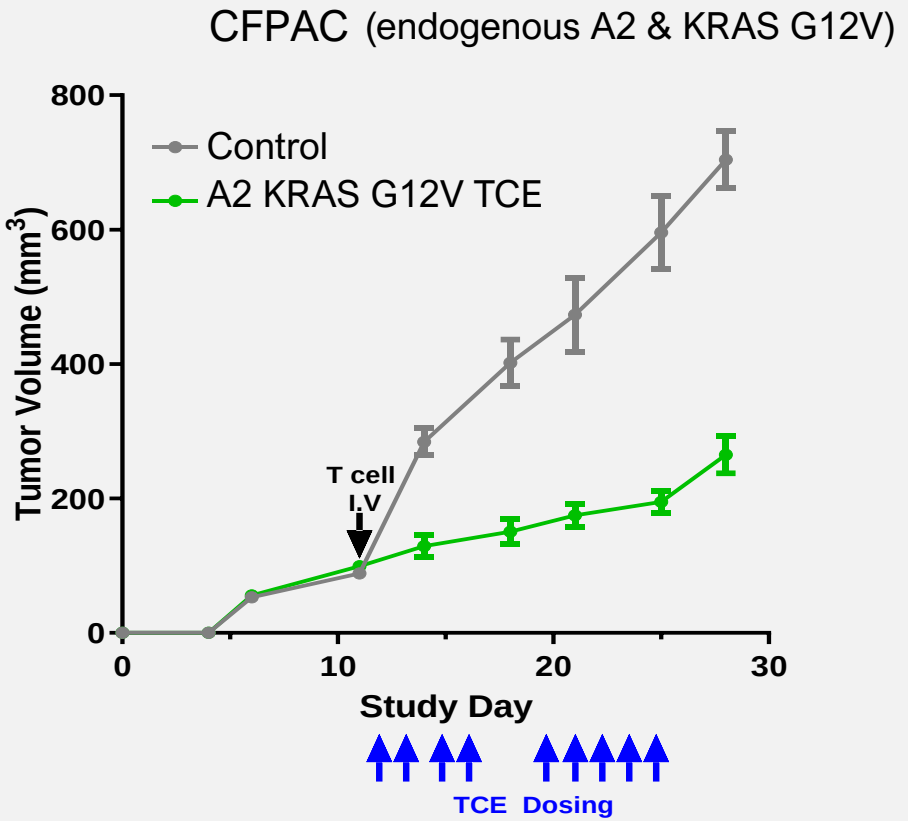
TCE: T Cell Engager

A2 KRAS G12V T Cell Engagers Displayed Functional Activity in *in vitro & in vivo* Preclinical Studies

In vitro activity



In vivo activity



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Co-Founder and CEO

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Morgan Stanley

Dirk Nagorsen, MD
Chief Medical Officer

Kim Nguyen, PhD
Chief Technical Officer

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Vida Ventures

Lucio Iannone, PhD
Leaps by Bayer

Mike Varney, PhD
Erasca

Dan Faga
AnaptysBio

Jill DeSimone
Independent

Investors

Exceptional Scientific Co-Founders & SAB Specialized in T Cell Biology and Immunology

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Scientific Co-Founder

Aude Chapuis, MD
Scientific Co-Founder

Tom Schmitt, PhD
Scientific Co-Founder

Chris Klebanoff, MD
Scientific Co-Founder

Scientific Advisors

Jim Allison, PhD

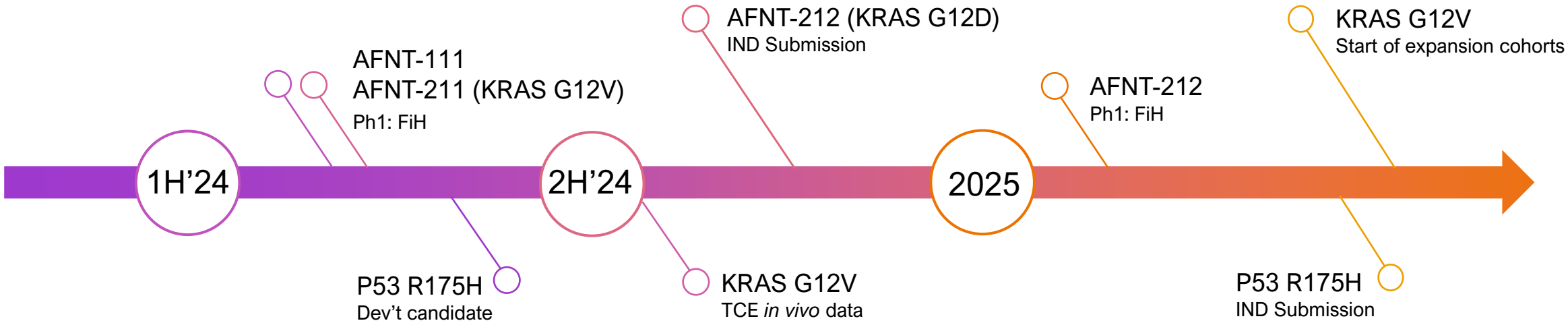
Pam Sharma, MD

Rafi Ahmed, PhD

David Kranz, PhD

Sue Kaech, PhD

Current Status & Key Clinical Catalysts



Affini-T is the premier Precision Immunotherapy company targeting oncogenic driver mutations to develop curative therapies for patients with solid tumors

Partnership Opportunities

TAILOR™
TCR Library for Oncology + I&I

THRIVE™
Engineering & Manufacturing

TUNE™
SynBio Armoring Technology

TETHER™
Bi-specific T Cell Engagers

Strategic Partners

Fred Hutch Cancer Center
Memorial Sloan Kettering Cancer Center
elevatebio
Metagenomi
ADIMAB

* All future catalysts and milestones planned but not guaranteed

affini

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