



Precision Immunotherapy for Oncogenic Driver Mutations

Non-Confidential Corporate
Presentation
February 2024

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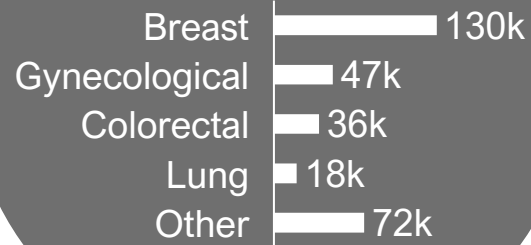
RIGHT TARGETS. RIGHT CELLS. RIGHT PLACE.

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

- **Leader in Precision Immunotherapy** - developing a deep pipeline of T cell and bi-specific 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

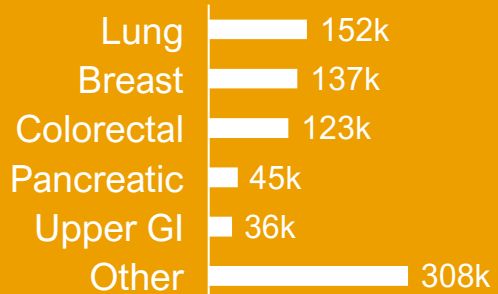
PIK3CA 303k Patients/yr



KRAS 253k Patients/yr



TP53 801k 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



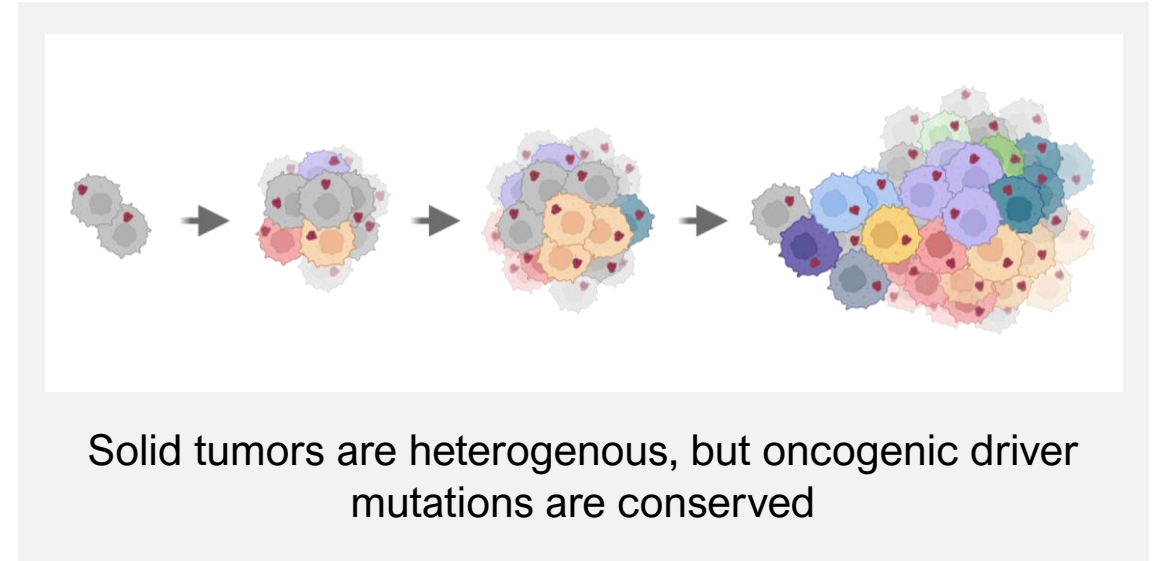
Cancer cells are dependent on oncogenic drivers for survival and proliferation



Oncogenic drivers are ubiquitously expressed in otherwise heterogeneous tumors

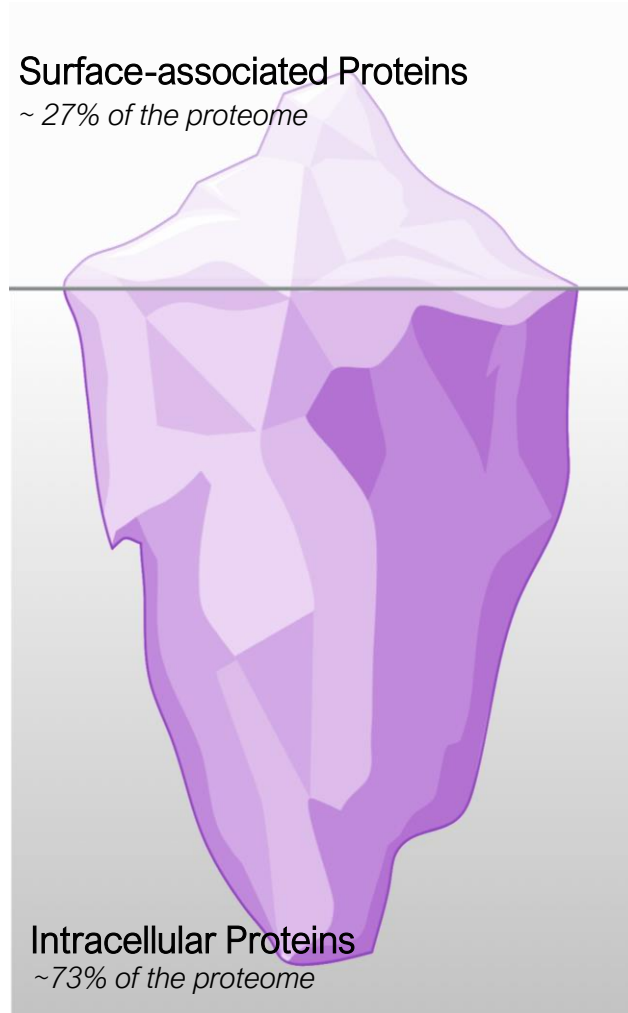


KRAS mutations are present in up to 30% of solid tumor malignancies



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

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



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

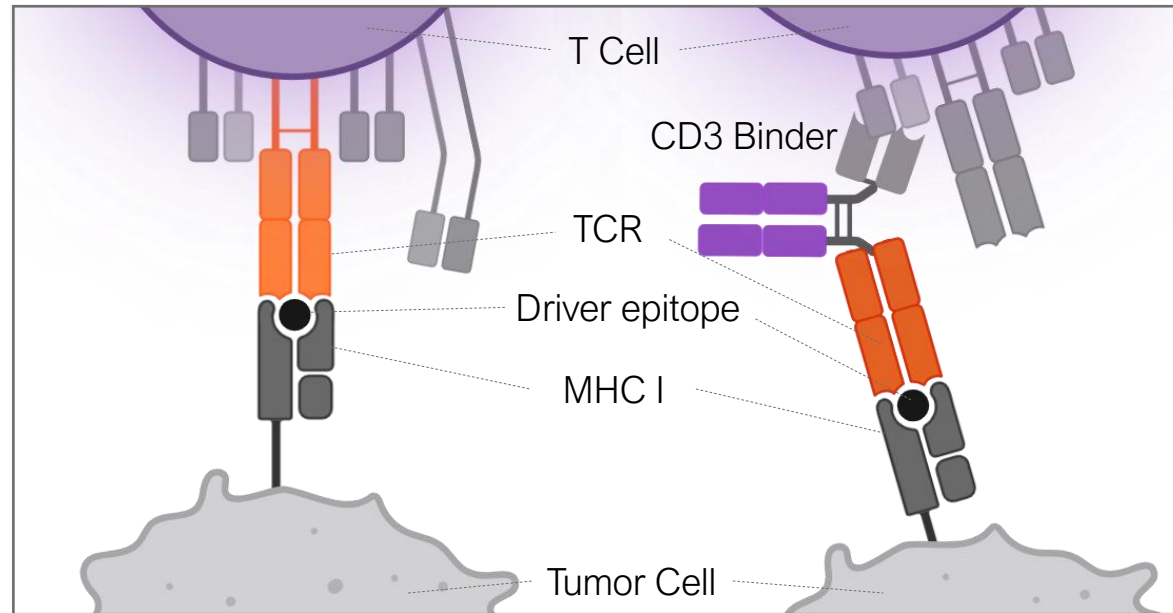
TCR-based therapies enable precise targeting of intracellular proteins presented as epitopes on the cell surface

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

Affini-T is Developing Two TCR-Based Therapeutic Modalities

TCR-T Cell Therapies

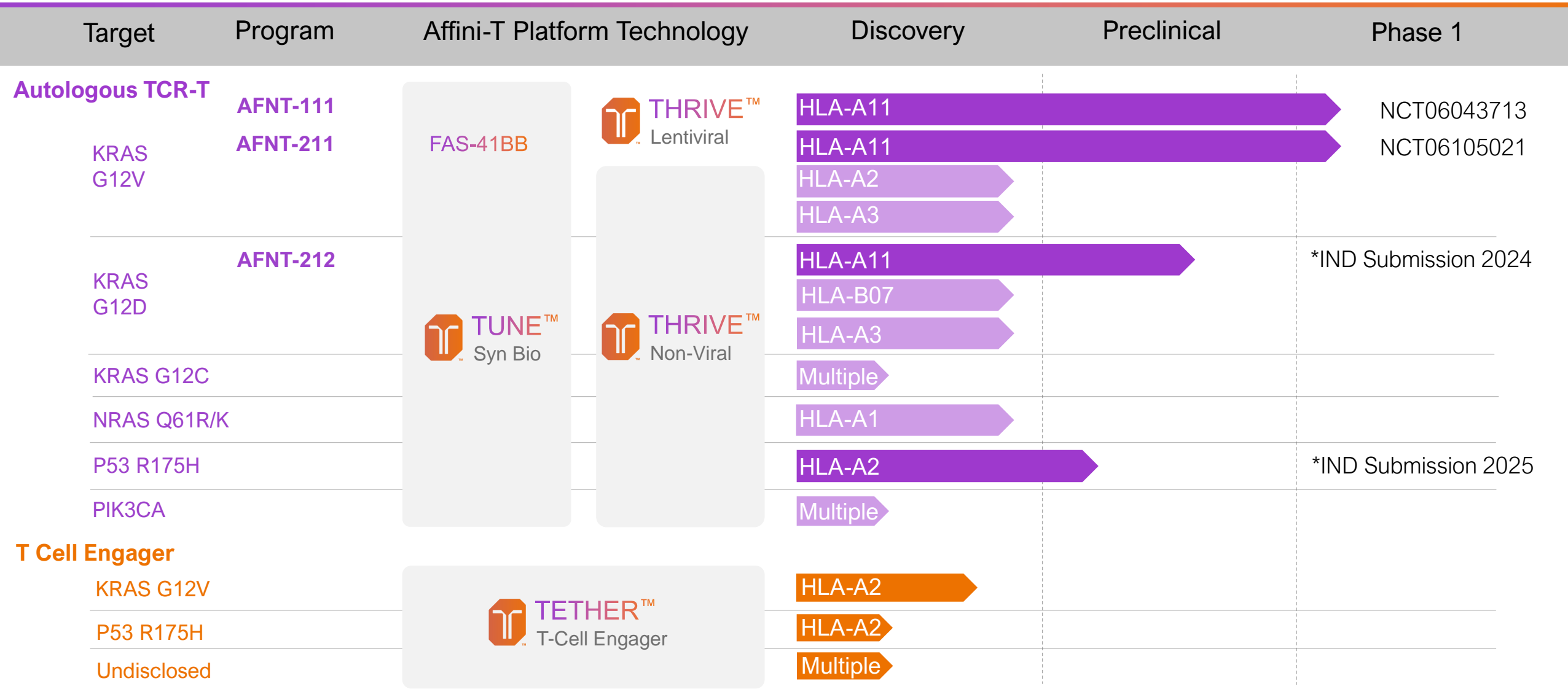
T cells engineered with a transgenic TCR that allows recognition of specific driver mutant epitopes



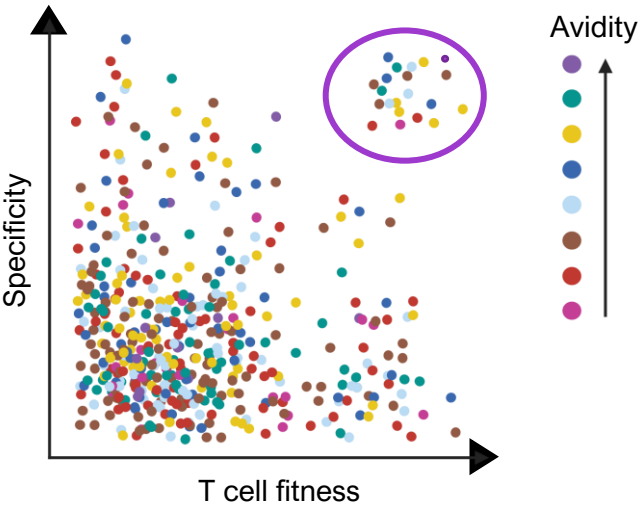
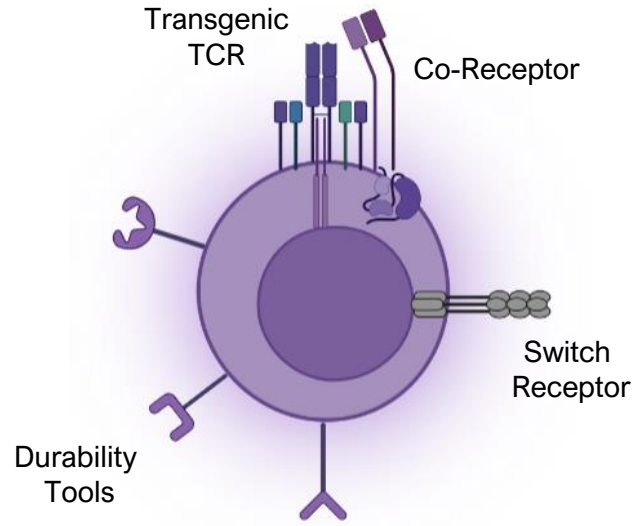
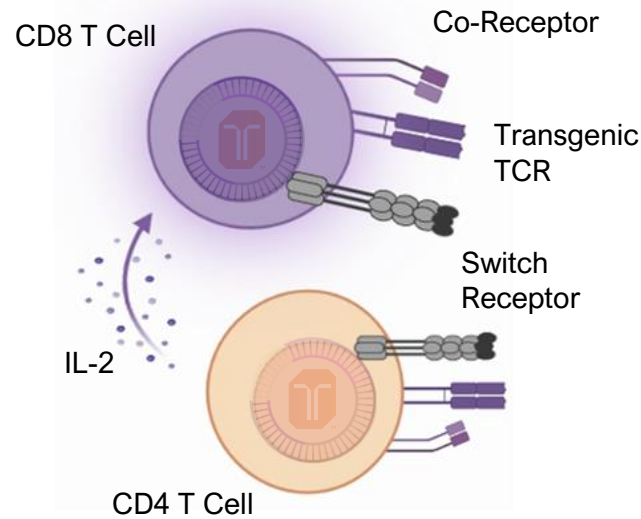
Bispecific T Cell Engagers

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

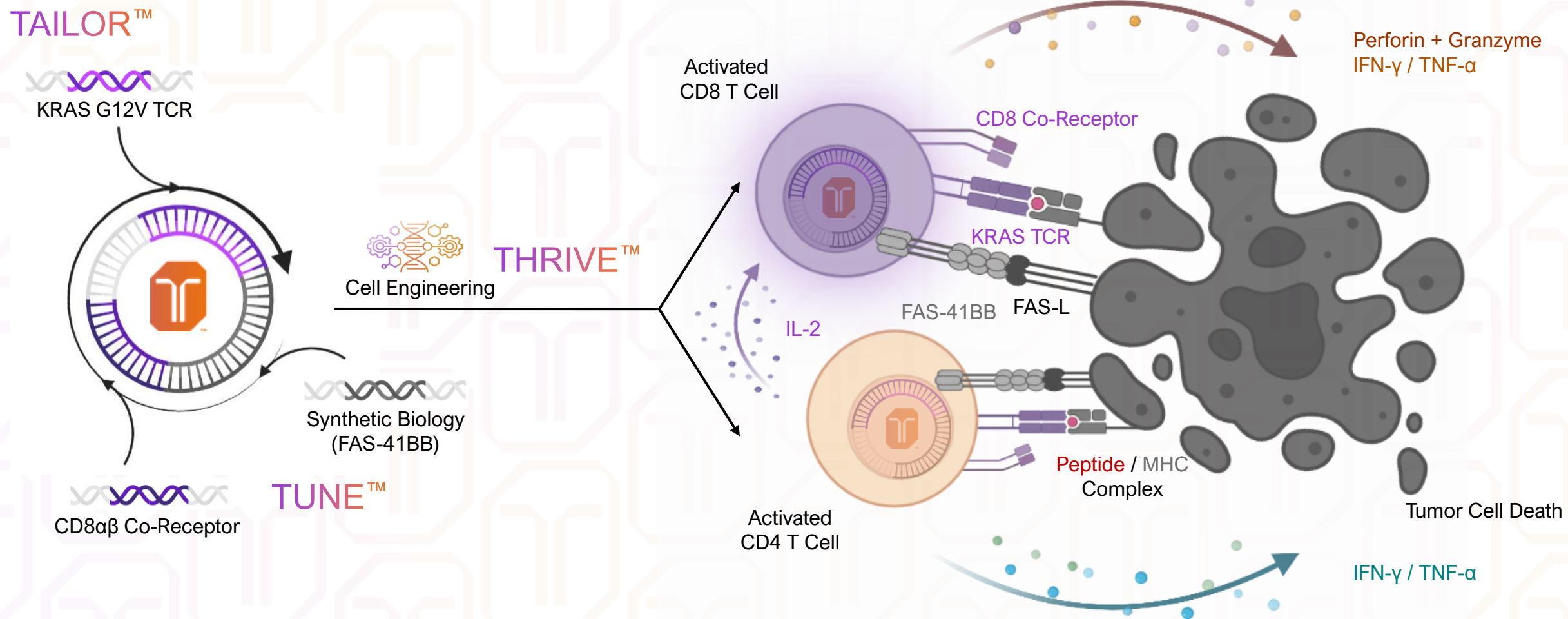
First-In-Class Potential for Multiple Products Targeting Oncogenic Drivers in Solid Tumors



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

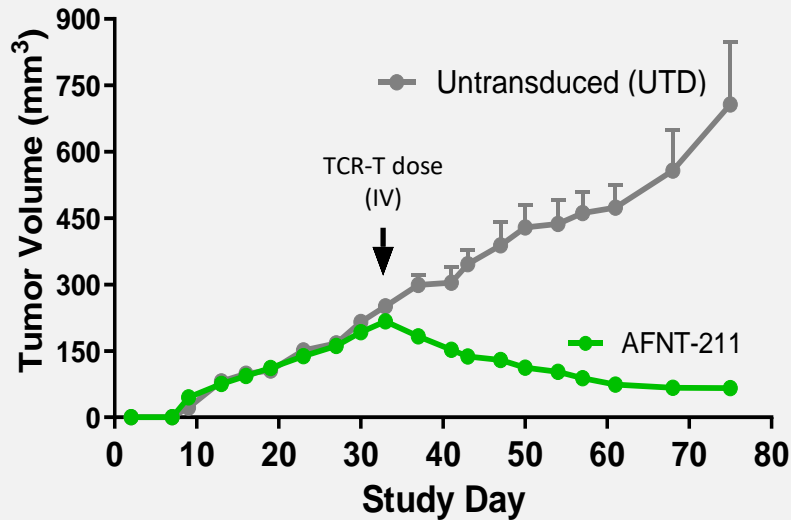
<p style="text-align: center;">TAILOR™ TCR Discovery</p>	<p style="text-align: center;">TUNE™ Synthetic Biology</p>	<p style="text-align: center;">THRIVE™ Engineering and Manufacturing</p>
 <p>A scatter plot with 'Specificity' on the y-axis and 'T cell fitness' on the x-axis. The plot contains numerous colored dots representing different TCRs. A legend on the right indicates 'Avidity' levels from low (purple) to high (pink). A purple circle highlights a cluster of high-specificity, high-fitness TCRs.</p>	 <p>A diagram of a T cell. It features a 'Transgenic TCR' (purple) and a 'Co-Receptor' (blue) on its surface. A 'Switch Receptor' (grey) is also shown. 'Durability Tools' (purple) are depicted as additional receptors on the cell's surface.</p>	 <p>A diagram illustrating the differentiation of a CD8 T Cell (top) into a CD4 T Cell (bottom). The CD8 T Cell has a 'Transgenic TCR' (purple) and a 'Co-Receptor' (blue). The CD4 T Cell has a 'Switch Receptor' (grey) and a 'Co-Receptor' (blue). 'IL-2' (represented by small dots) is shown influencing this transition.</p>
<p>Predictive algorithms & machine learning identify highly functional and specific TCRs against diverse targets</p>	<p>Program cell persistence in the TME to enhance durability with switch receptors (eg Fas-41BB), co-receptor and other armoring technologies</p>	<p>Scalable manufacturing with gene editing technologies to generate a robust engineered product with > 95% central memory / stemness phenotype</p>

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

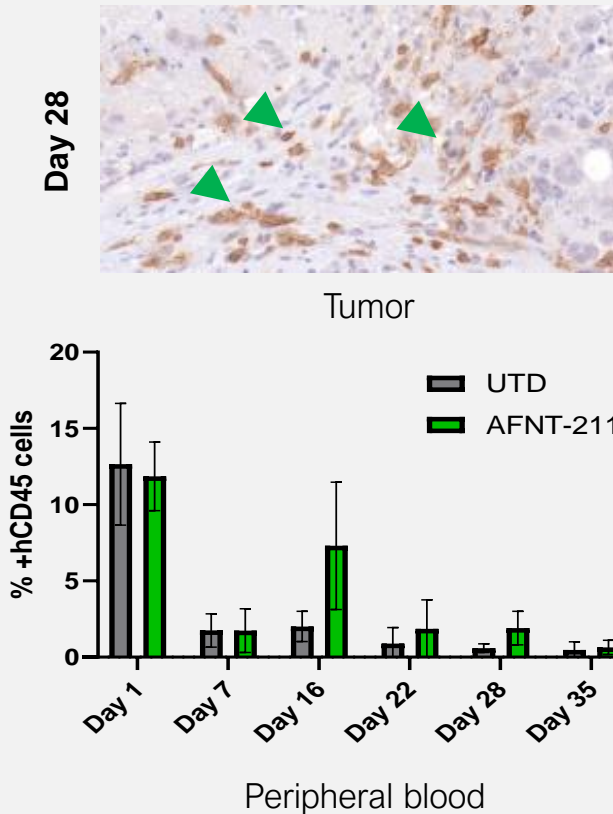


AFNT-211 Differentiated Switch Receptor Armoring Drove Antitumor Activity in Preclinical Models

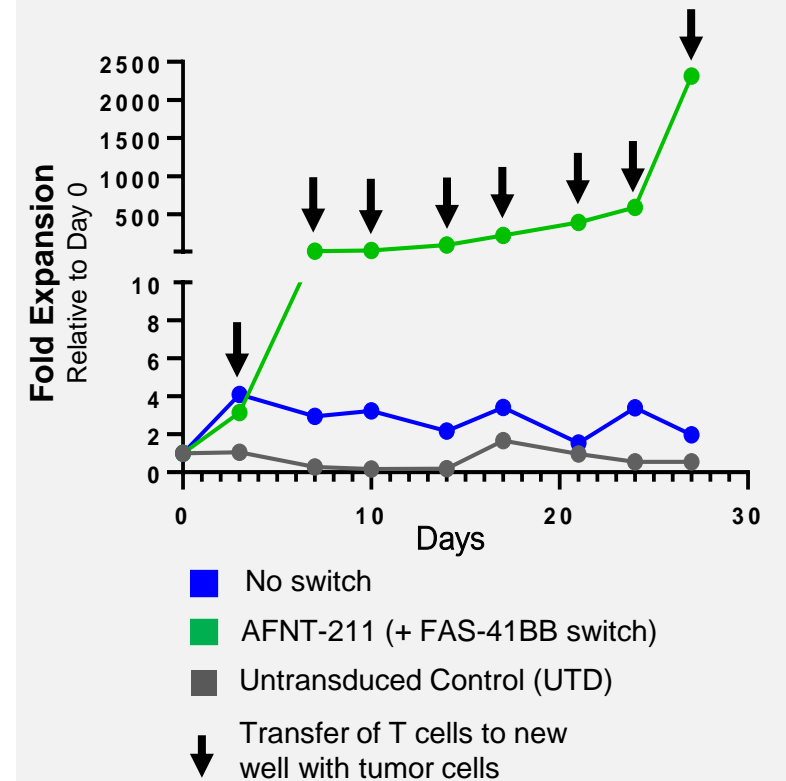
AFNT-211 eradicated large, established tumors that have challenged other therapies



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

*Optimal Biological Dose /
Proof of Clinical Concept*

*Interim
Analysis*

ORR & DoR

Registration Study

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

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

*Excluding primary brain tumors

AFNT-211 Patient Journey

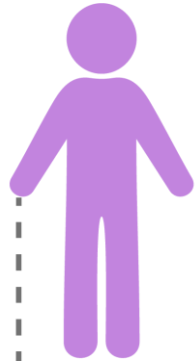
Pre-screen

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

Eligibility Screen



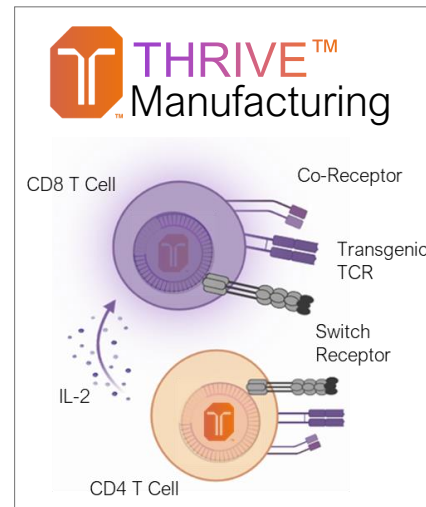
Leukapheresis



Lymphodepletion**

6 Day LDC

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



AFNT-211
TCR-T cell
product infusion



Patient Monitoring

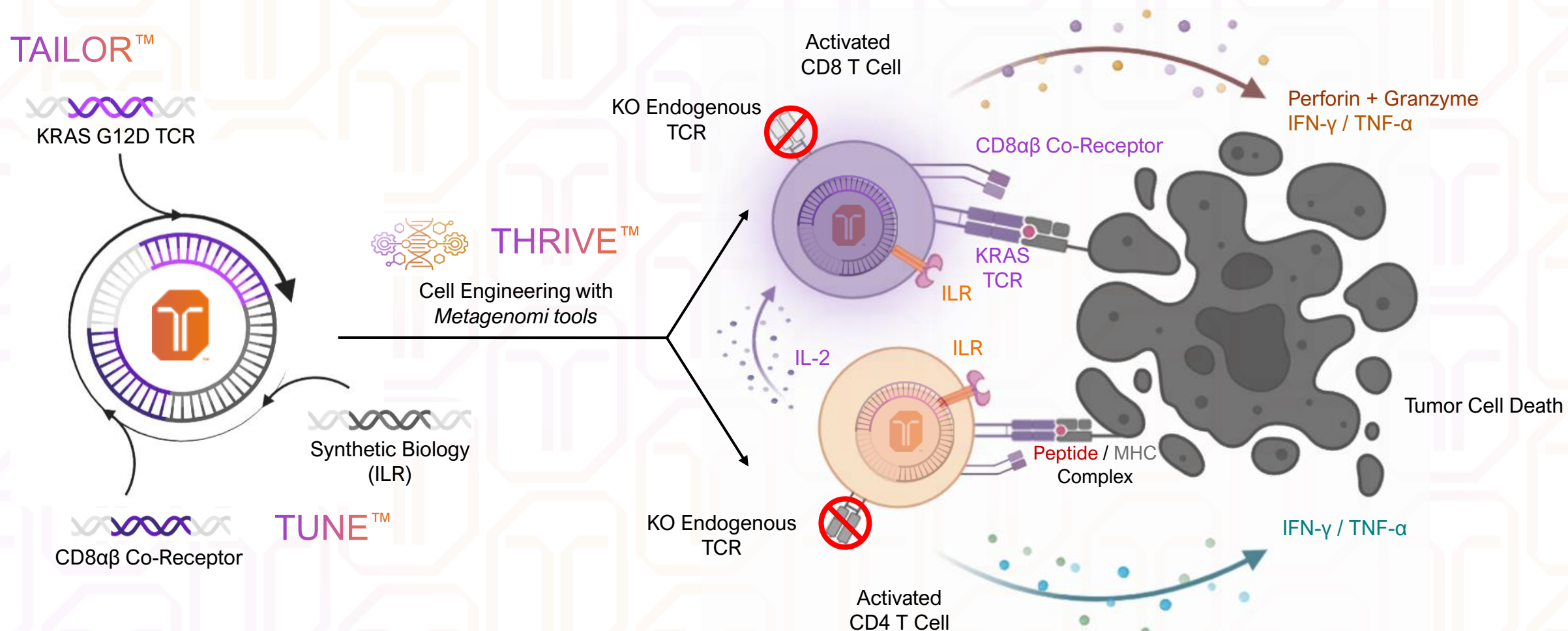


Transition to long term follow up

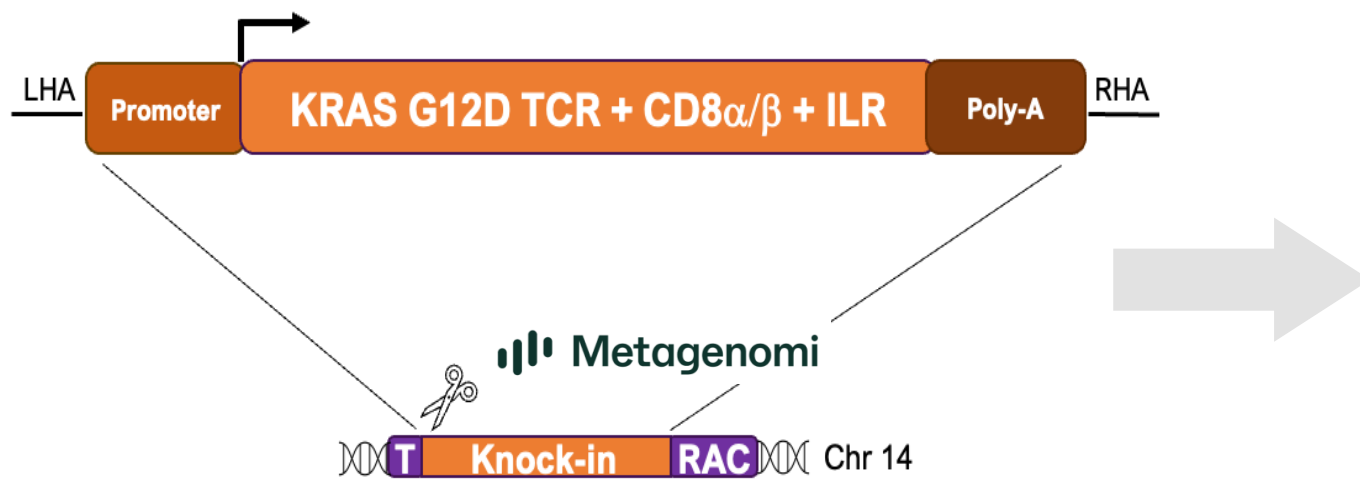
Targeting ~22-day vein-to-vein time

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

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

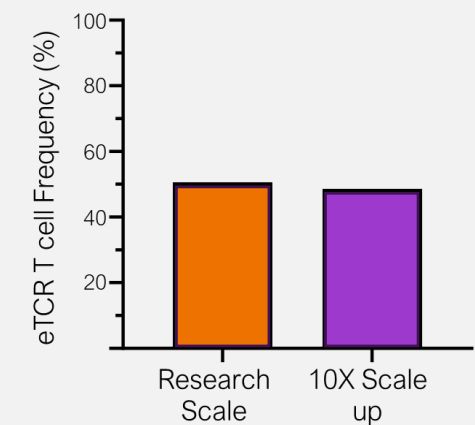


THRIVE™ High Efficiency Non-viral Delivery of Large Transgenes at cGMP Scale

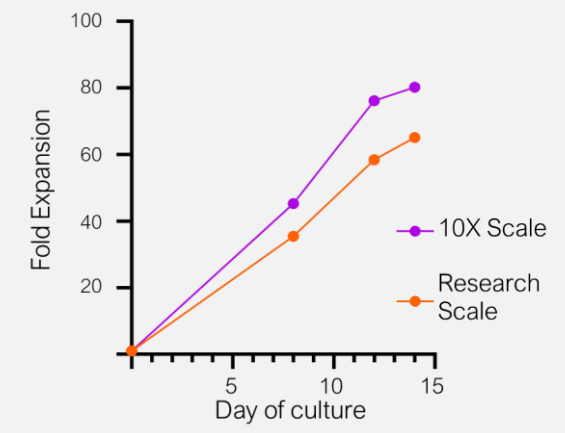


Transgenes inserted within the endogenous TRAC gene via CRISPR/Cas driven homology mediated repair

Transgene Integration Frequency

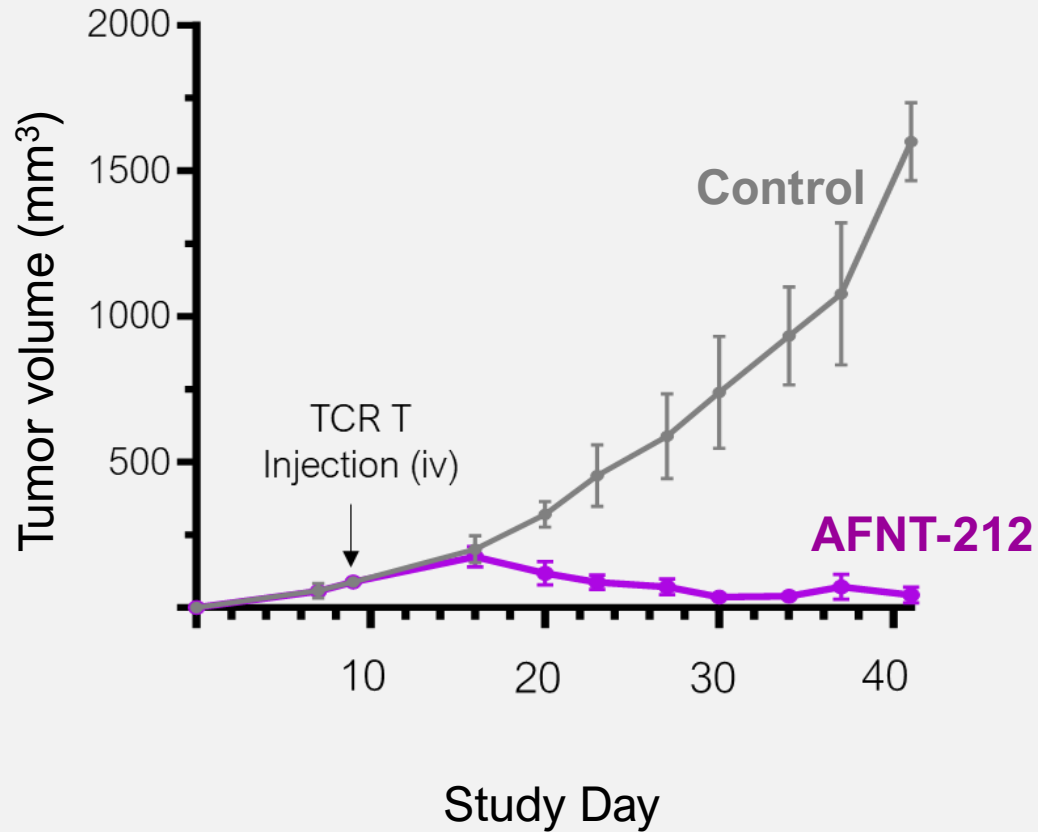


Expansion Kinetics

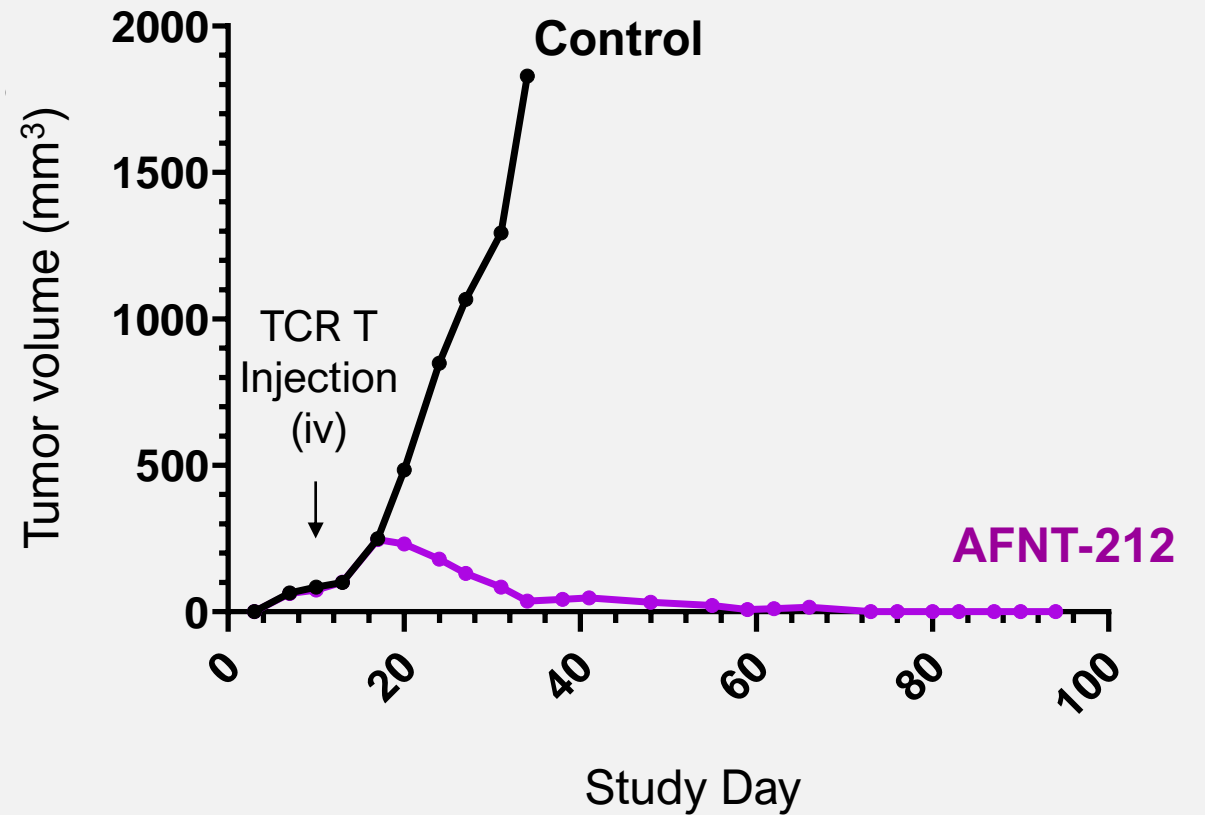


AFNT-212 Showed Robust Anti-tumor Activity in Established Tumor Mouse Models *in vivo*

Model: HuCCT (Bile duct)
Dose: 5e6 TCR T cells



Model: CL40 (Colon)
Dose: 8e6 TCR T cells

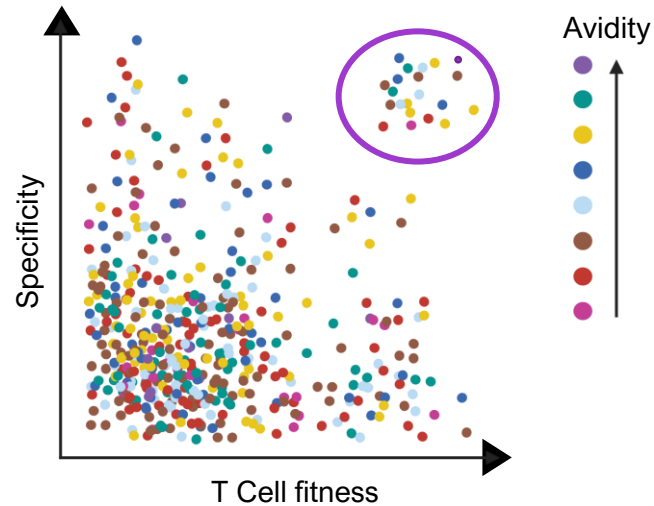


Affini-T Platform Technologies Enable the Generation of Highly Specific & Active T Cell Engagers

1

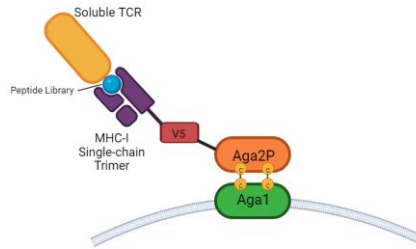
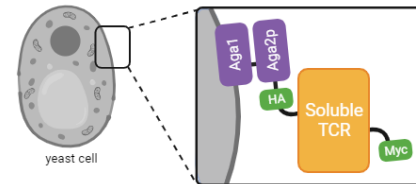
TAILOR™ TCR Discovery

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



2

Affinity Maturation



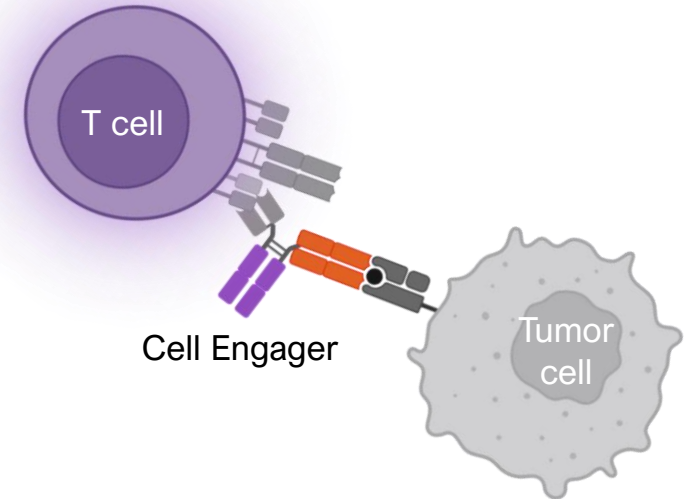
Yeast Display Modalities

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

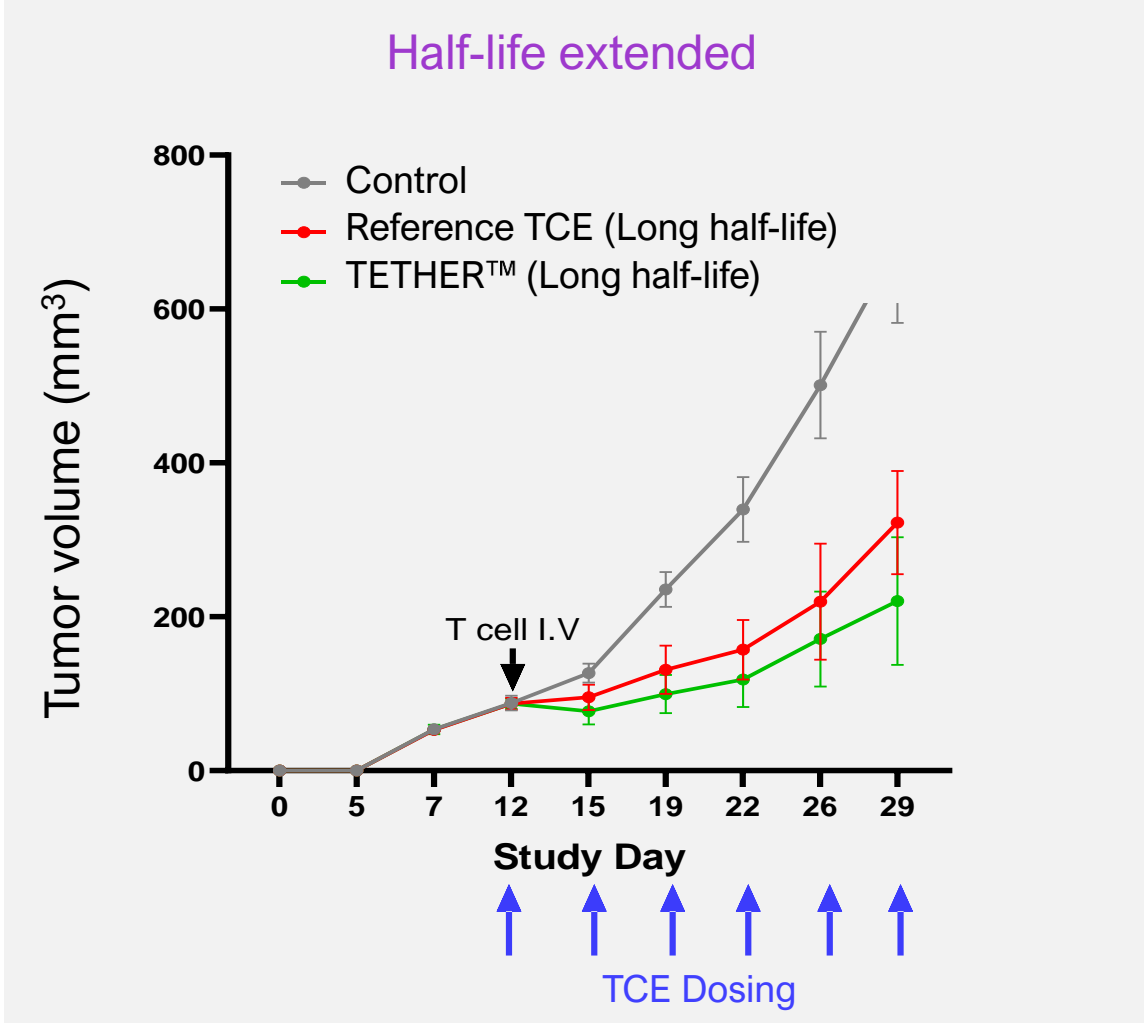
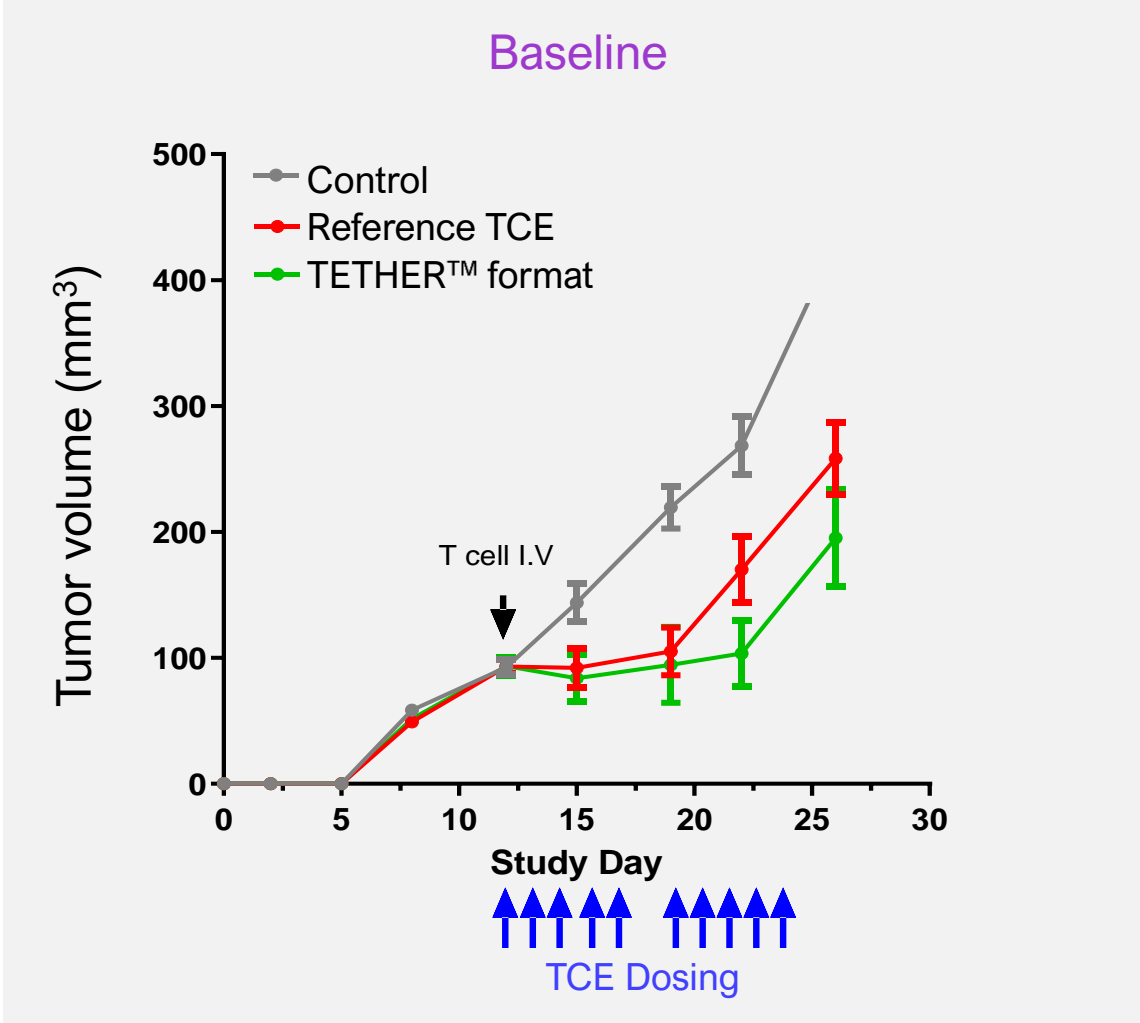
3

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*

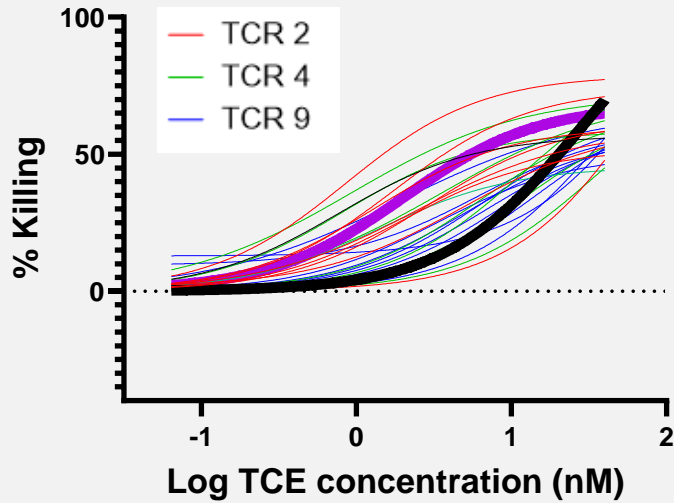


A2 KRAS G12V T Cell Engagers Displayed Functional Activity in *in vitro* & *in vivo* Preclinical Studies

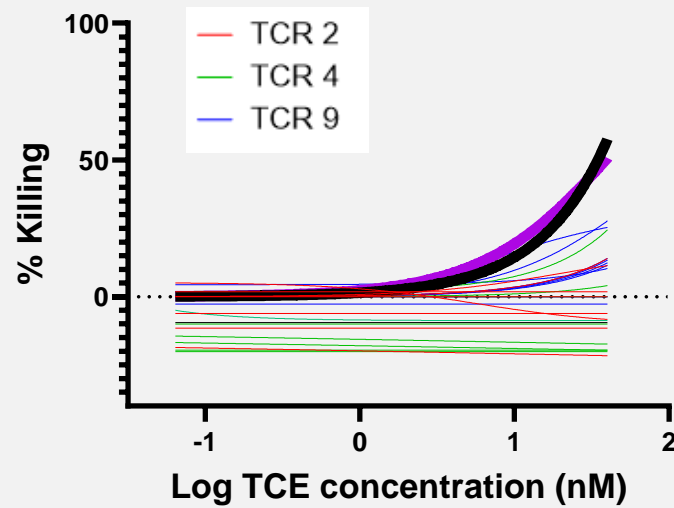
In vitro activity

In vivo activity

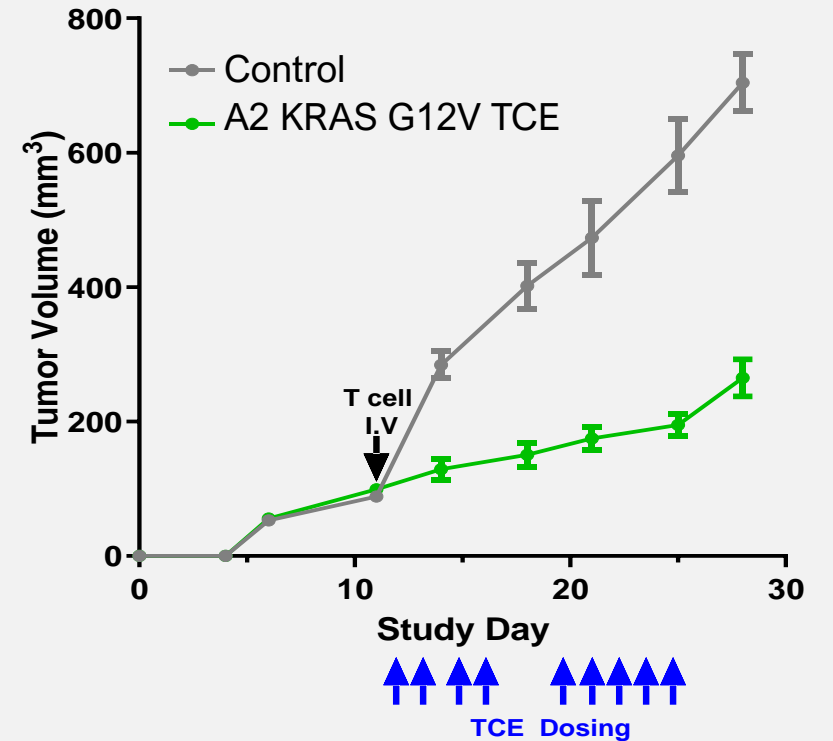
CFPAC + G12V peptide



CFPAC + WT peptide



CFPAC (endogenous A2 & KRAS G12V)



Experienced Management Team Supported by Blue-Chip Investor Syndicate

Executive Leadership



Jak Knowles, MD
Co-Founder and CEO



Kathy Bergsteinsson, MBA
Chief Financial Officer

Morgan Stanley



Dirk Nagorsen, MD
Chief Medical Officer



Kim Nguyen, PhD
Chief Technical Officer



Loïc Vincent, PhD
Chief Scientific Officer



Kathy Yi, MBA
Chief Operating Officer



Thaminda Ramanayake, MBA
Chief Business Officer



Board of Directors



Jak Knowles, MD
Affini-T Therapeutics



Arjun Goyal, MD
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

Co-Founders



Phil Greenberg, MD
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



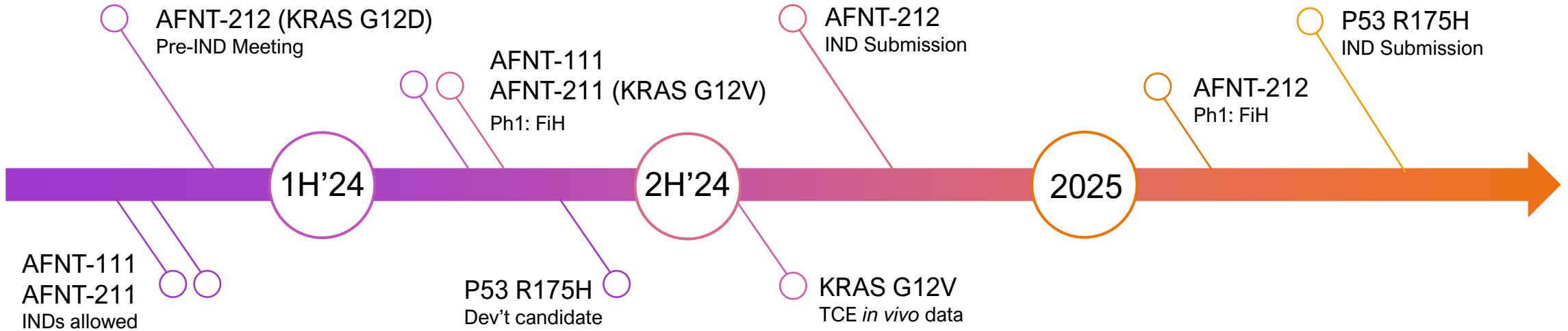
David Kranz, PhD



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

TUNE™
SynBio Armoring Technology

THRIVE™
Engineering & Manufacturing

TETHER™
Bi-specific T Cell Engagers

Strategic Partners



* All future catalysts and milestones planned but not guaranteed

