ATRC-101 Clinical Data Webcast

July 29, 2021

NON-CONFIDENTIAL

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This presentation discusses our current and potential future product candidates that are under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration. No representation is made as to the safety or effectiveness of these current or potential future product candidates for the use for which such product candidates are being studied.

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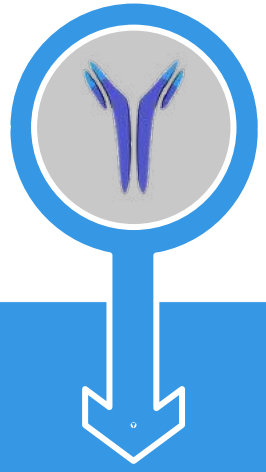
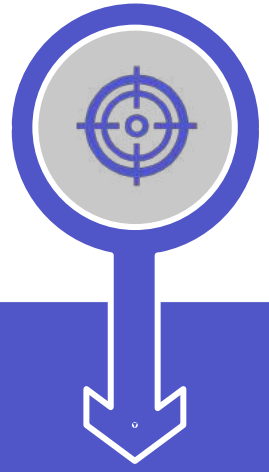
Agenda

- Background: ATRC-101 discovery, preclinical data, and mechanistic insights
- ATRC-101 Phase 1b Clinical Trial
- Summary and Future Development Plans
- Platform Update
- Q&A

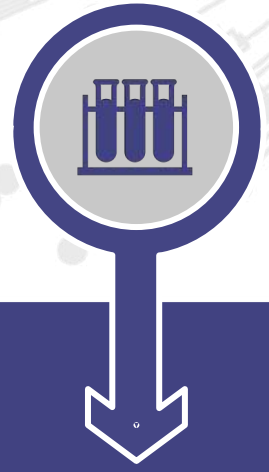
Top-line Summary



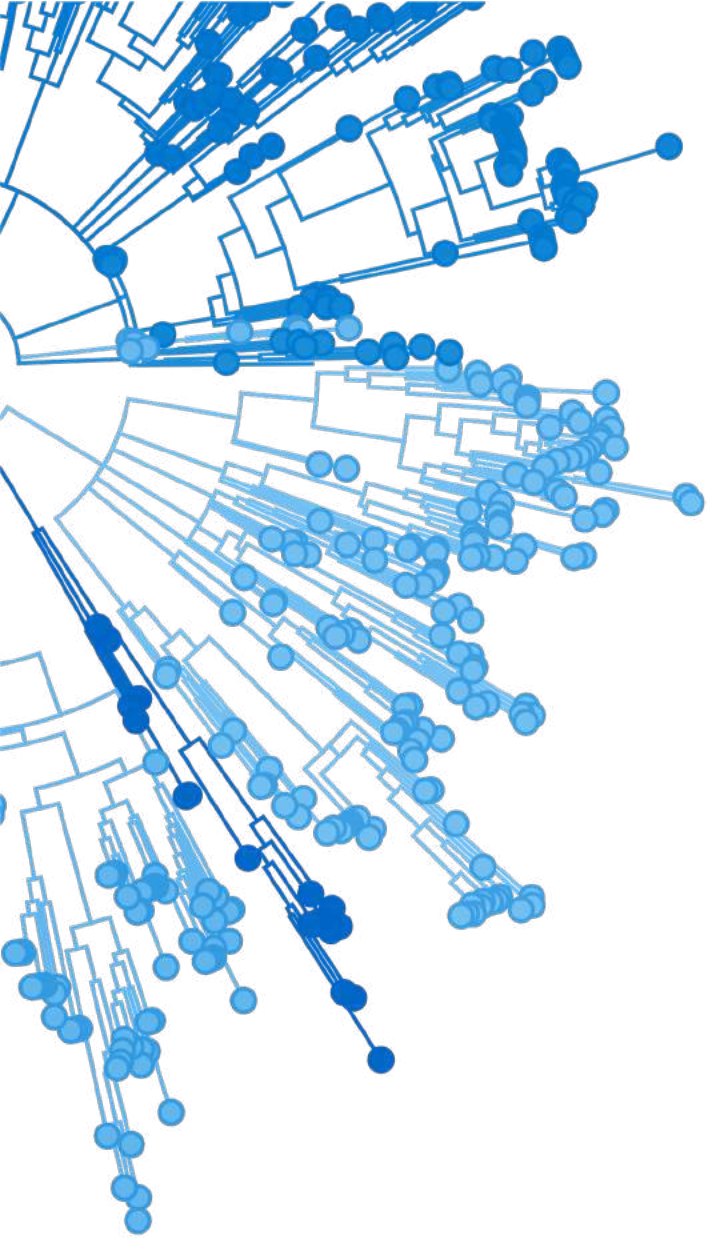
ATRC-101 was well tolerated by participants



Disease control is associated with target expression



Biomarker data are consistent with the ATRC-101 proposed mechanism of action

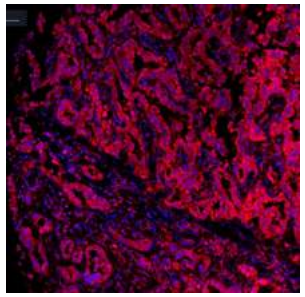


Background on ATRC-101

ATRC-101: A New Way to Target Cancer

Engineered version of a patient antibody discovered via the Atreca platform

Lung adenocarcinoma patient with active anti-tumor immune response

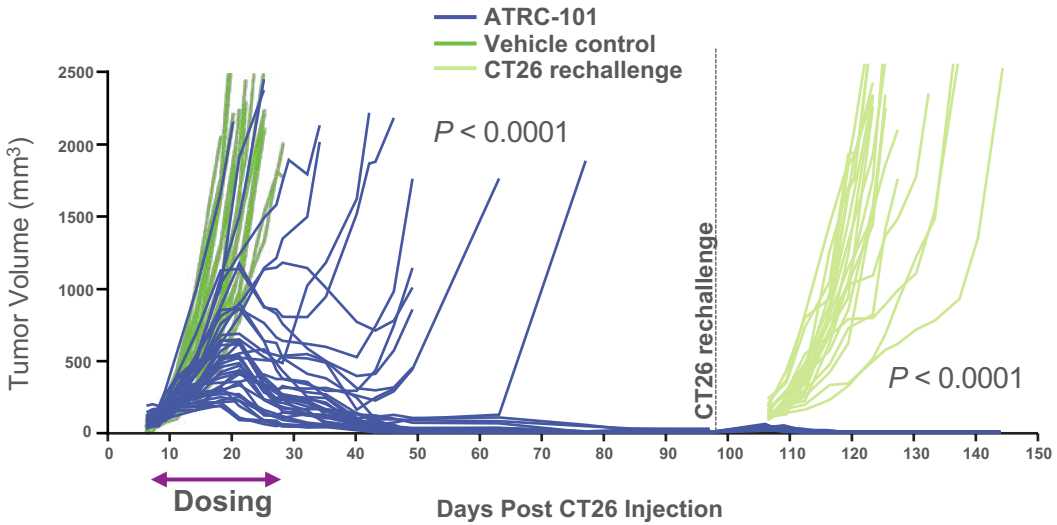


ATRC-101 binds its target in multiple tumor types from different patients

ATRC-101 reactivity is tumor-specific across multiple cancer types

- ATRC-101 reactivity has been seen in ~50% or more of samples from patients with melanoma, NSCLC, and breast, ovarian, and colorectal cancer
- ATRC-101 appears to target a ribonucleoprotein (RNP) complex with over 20 proteins, the most prominent being polyadenylate-binding protein 1(PABP-1)

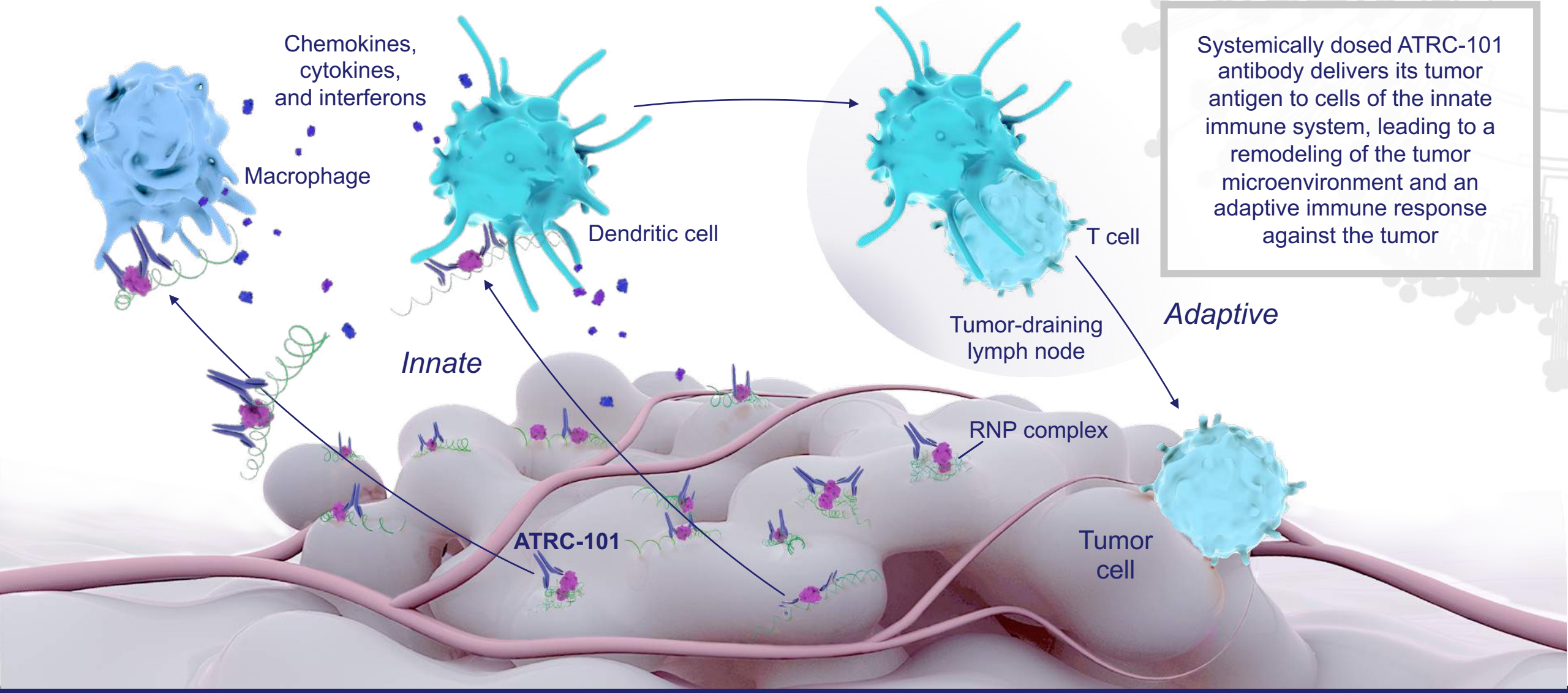
ATRC-101 inhibits tumor growth and leads to immune memory in the CT26 syngeneic model



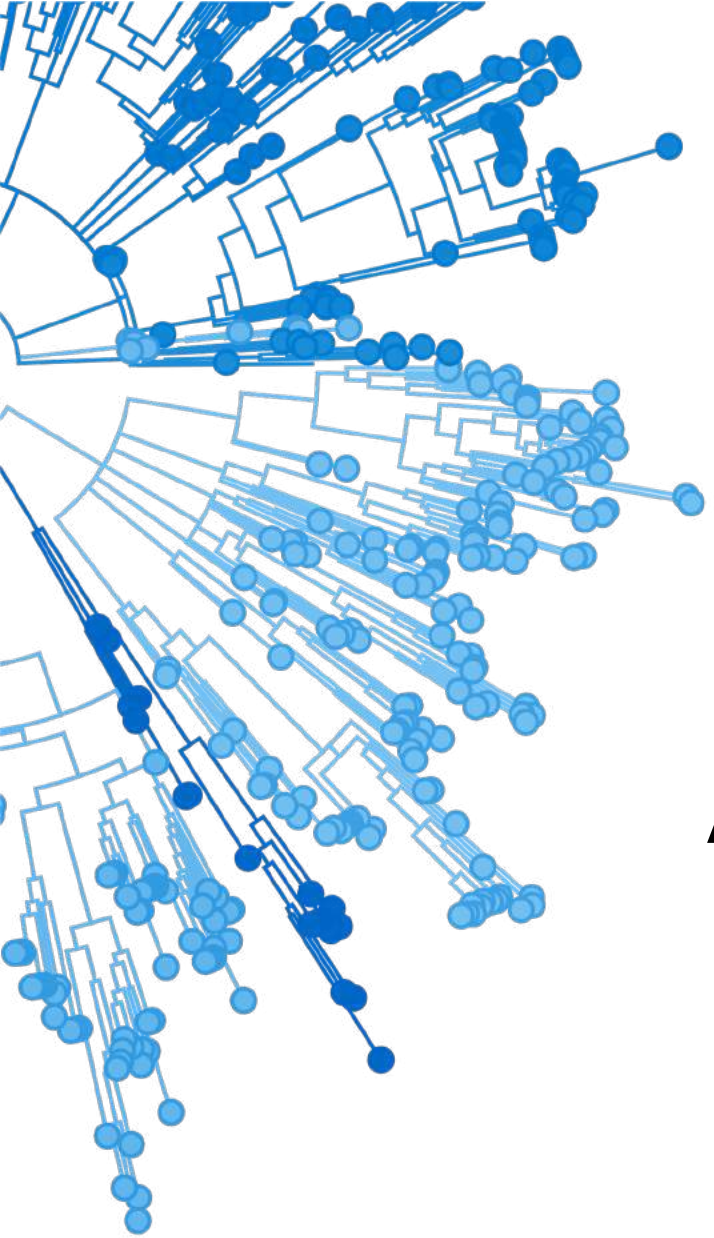
- Large tumors can be eradicated in this model by continued dosing with ATRC-101
- Immune memory prevents re-establishment of tumors after tumor clearance by a second CT26 injection (also observed in the EMT6 model)

NSCLC, non-small cell lung cancer.

Novel ATRC-101 Mechanism of Action: Driver Antigen Engagement



Systemically dosed ATRC-101 antibody delivers its tumor antigen to cells of the innate immune system, leading to a remodeling of the tumor microenvironment and an adaptive immune response against the tumor



ATRC-101 Phase 1b Clinical Trial

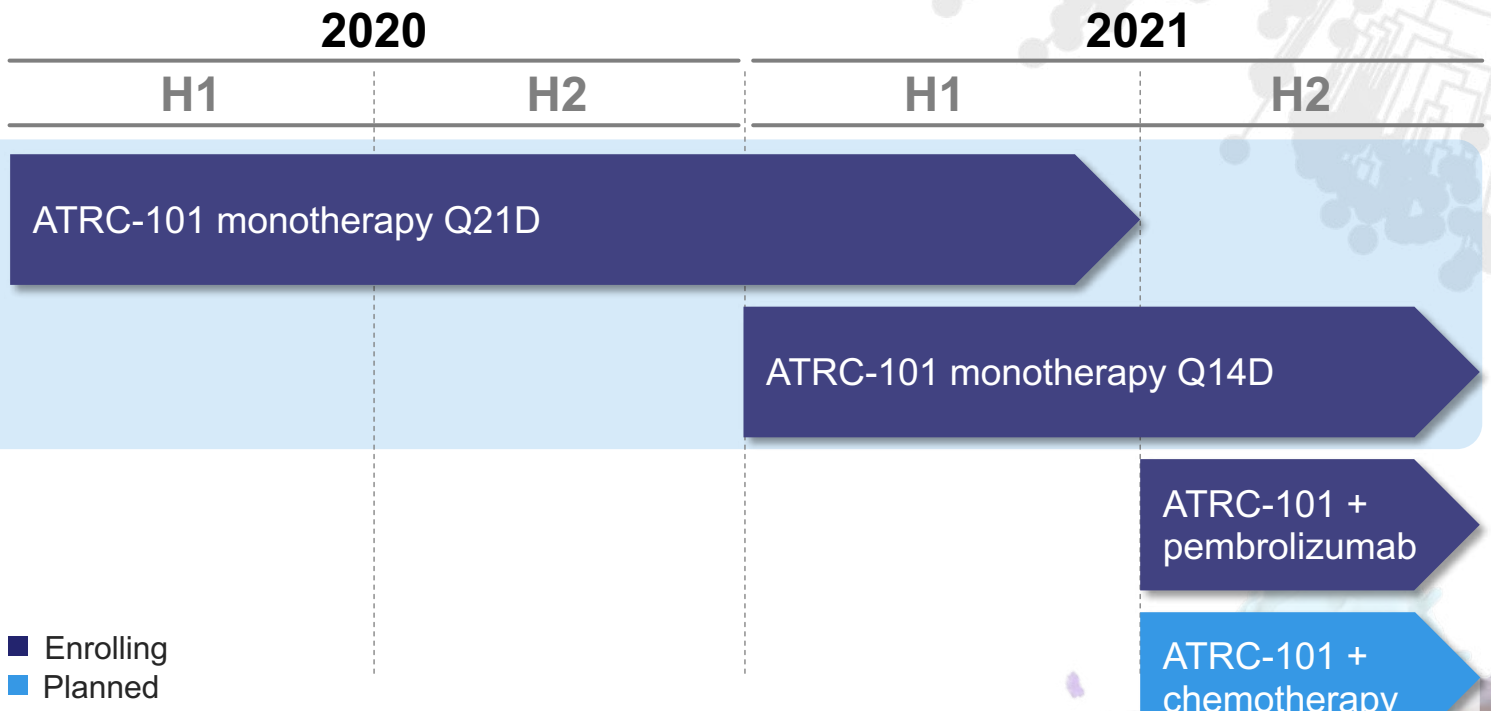
Phase 1b Trial Study Design and Cohort Enrollment Status

OBJECTIVES

- Characterize safety
- Determine MTD or RP2D
- Measure initial clinical activity
- Analyze target expression retrospectively
- Characterize tumor lymphocyte infiltration and other potential biomarkers of activity in tumors, plasma, and PBMCs

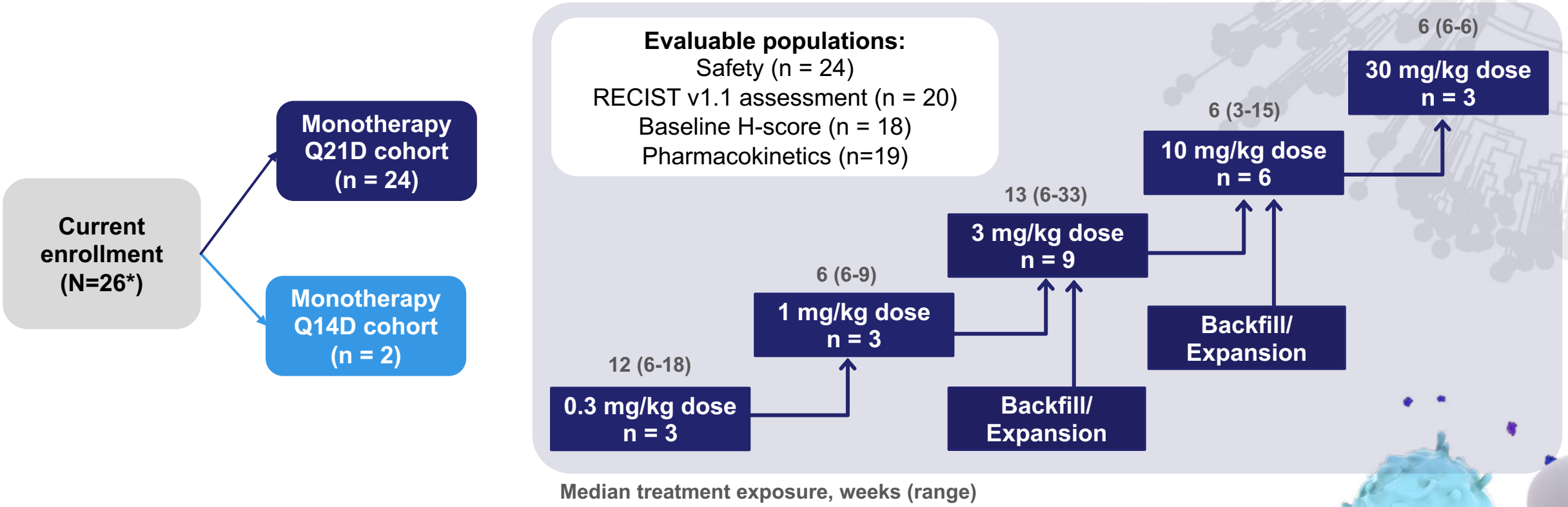
MONOTHERAPY ARM

- Open-label, dose-escalation, adaptive 3+3 design
- IV infusion
- Enrolling participants with advanced solid tumor types that demonstrated >50% reactivity to ATRC-101 in preclinical studies, including:
  - Ovarian cancer
  - NSCLC
  - Colorectal cancer
  - Breast cancer
  - Acral melanoma



IV, intravenous; MTD, maximum tolerated dose; NSCLC, non-small cell lung cancer; PBMC, peripheral blood mononuclear cell; Q14D, every 14 days; Q21D, every 21 days, RP2D, recommended phase 2 dose.

Enrollment, Evaluable Populations, and Treatment Duration as of July 16, 2021, Cutoff



*One more participant in 10 mg/kg Q21D cohort enrolled but not evaluable.
Statistical inferences of the clinical data in this presentation are exploratory in nature.
Q14D, every 14 days; Q21D, every 21 days.

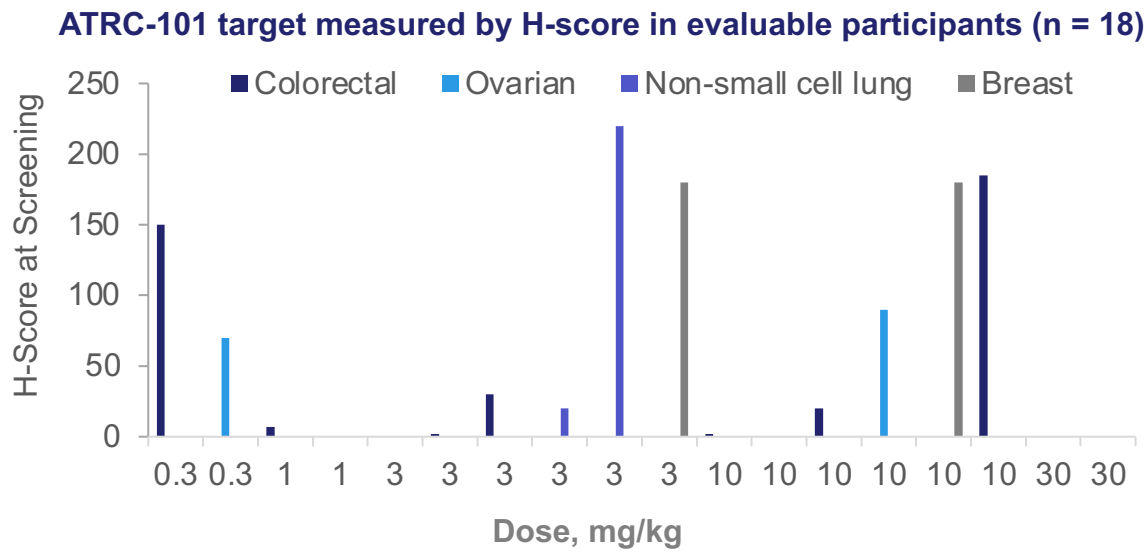
Baseline Characteristics for the Monotherapy Q21D Cohort

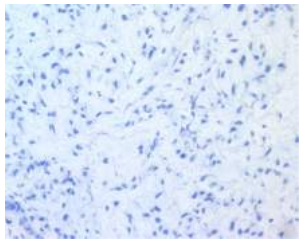
Most Participants Had Received Multiple Prior Lines of Therapy

Baseline characteristics	Overall N = 24
Age, median years (range)	57 (27–75)
Race, n (%)	
White	19 (79.2)
Asian	3 (12.5)
Black or African American	1 (4.2)
Other	1 (4.2)
ECOG PS at baseline, n (%)	
0	6 (25.0)
1	18 (75.0)
Participants with biopsies, n (%)	
Obtained	23 (95.8)
Evaluable	18 (75.0)
Cancer type, n (%)	
Colorectal	13 (54.2)
Ovarian	5 (20.8)
Breast	3 (12.5)
Non-small cell lung	2 (8.3)
Acral melanoma	1 (4.2)
Lines of prior cancer medications, n (%)	
0	1 (4.2)*
1	1 (4.2)
2	2 (8.3)
>2	20 (83.3)
Median (range)	5 (0–11)*
Prior therapy with checkpoint inhibitor, n (%)	12 (50.0)

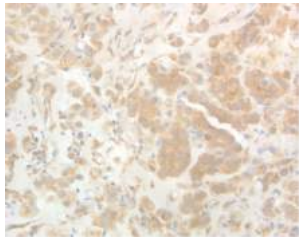
*Value of 0 prior lines corresponds with a missing data point.

Expression of ATRC-101 target was highly variable





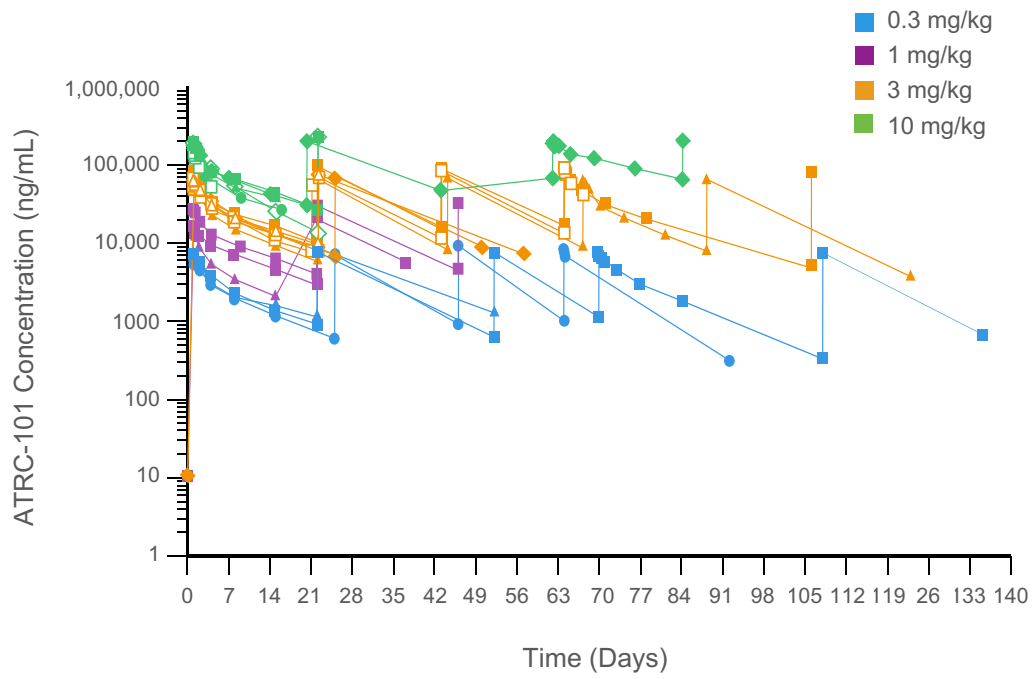
H-score = 0



H-score = 180

ATRC-101 Serum Concentrations Appeared to Be Dose Proportional

Average half-life was 10.5 days and was relatively consistent across dose levels



PK assessments	0.3 mg/kg	1 mg/kg	3 mg/kg	10 mg/kg
C_{max} for 1st dose (ng/mL), mean ± SD	7030 ± 418	19,300 ± 6800	63,800 ± 10,800	168,000 ± 22,700
$t_{1/2}$ for 1st dose (day), mean ± SD	12.5 ± 3.78	9.86 ± 1.49	11.0 ± 1.21	8.83 ± 3.61
AUC_{all} (day•ng/mL), mean ± SD	246,000 ± 90,500	325,000 ± 183,000	1,640,000 ± 1,080,000	1,900,000 ± 2,580,000
Accumulation ratio*, mean ± SD	1.15 ± 0.12	1.33 ± 0.22	1.17 ± 0.14	1.22 ± 0.04

- Maximal concentration and exposure appear to be dose proportional
- Minimal accumulation observed after multiple doses

*Accumulation ratio calculated by dividing C_{max} after last dose by C_{max} after first dose.
AUC_{all}, area under the curve inclusive of all available timepoints; C_{max}, maximum concentration, PK, pharmacokinetics, SD, standard deviation; $t_{1/2}$, half-life.

Adverse Events Summary
No Dose-Limiting Toxicities Observed

Eight participants experienced grade ≥ 3 treatment-emergent adverse events (N = 24)

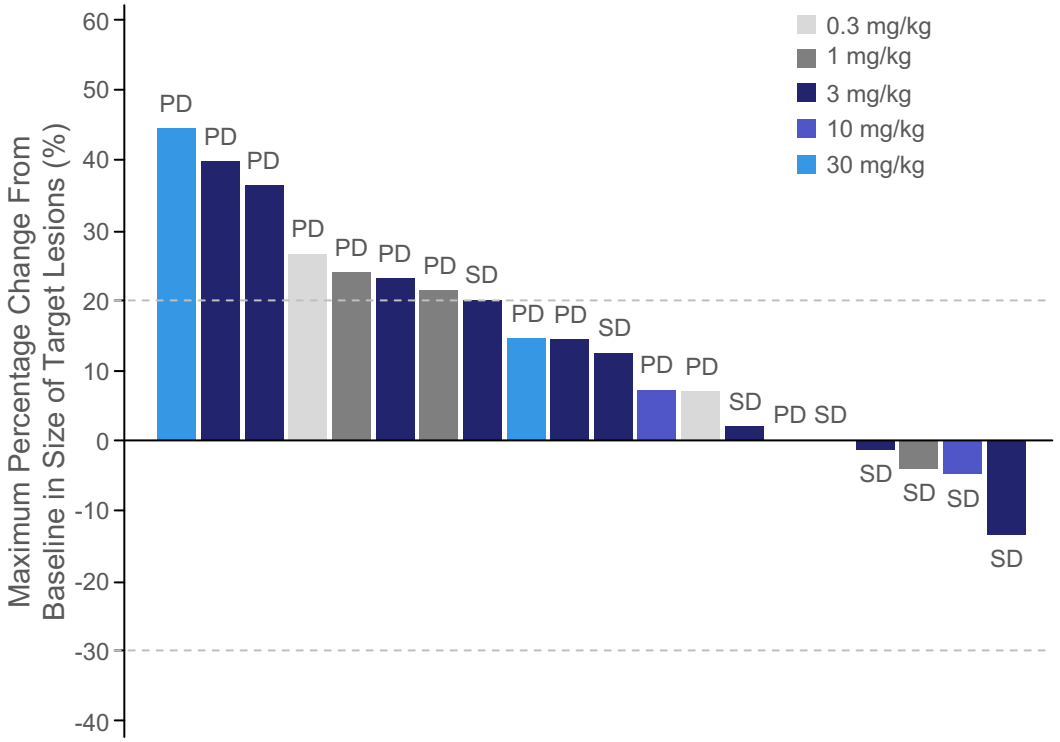
Treatment-emergent adverse events reported as grade ≥ 3 in ≥ 1 participant, n (%)	Grade 1–2	Grade ≥ 3
Any	22 (91.7)*	8 (33.3)
Sepsis	0	2 (8.3)
Nausea	8 (33.3)	1 (4.2)
Anemia	4 (16.7)	1 (4.2)
Tumor pain	3 (12.5)	1 (4.2)
Blood alkaline phosphatase increased	2 (8.3)	1 (4.2)
Abdominal abscess	0	1 (4.2)
Acute kidney injury	0	1 (4.2)
Acute respiratory failure	0	1 (4.2)
Biliary tract infection	0	1 (4.2)
Hepatic failure	0	1 (4.2)
Hypoxia	0	1 (4.2)
Malignant ascites	0	1 (4.2)
Radiation-associated pain	0	1 (4.2)
Respiratory failure	0	1 (4.2)
Small intestinal obstruction	0	1 (4.2)
Vertebral foraminal stenosis	0	1 (4.2)

*Includes any participant with an adverse event of any grade.

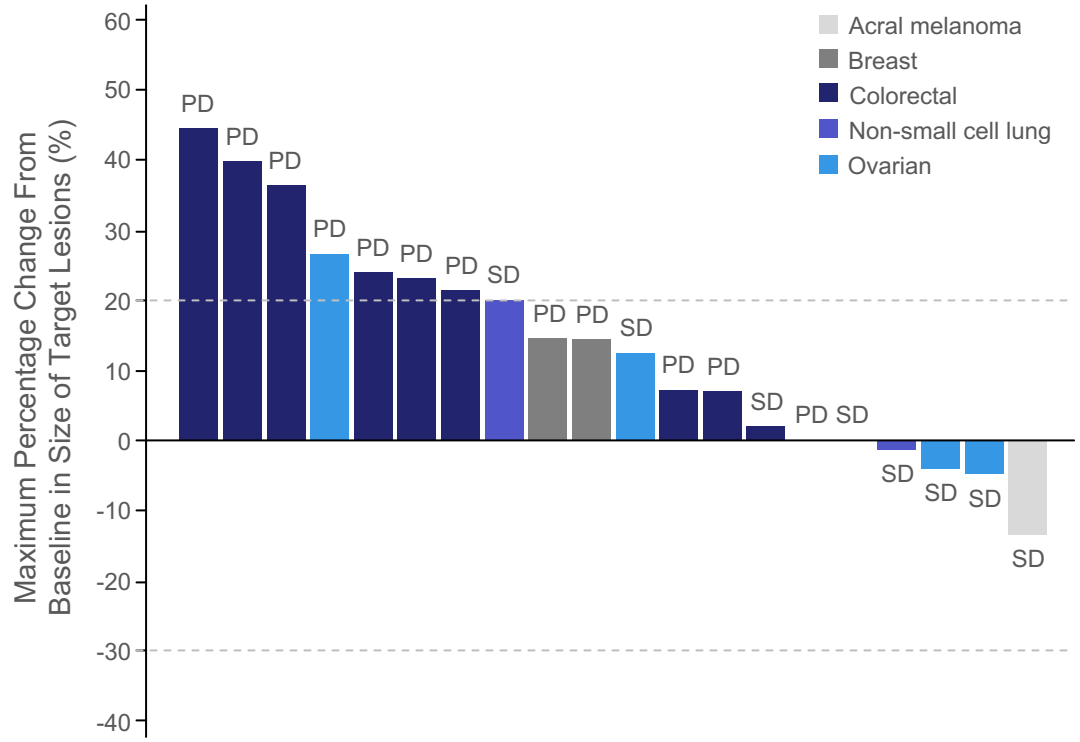
Treatment-related adverse events reported as grade 1-2 in > 1 participant or grade ≥ 3 in ≥ 1 participant, n (%)	Grade 1–2	Grade ≥ 3
Any	15 (62.5)*	1 (4.2)
Fatigue	5 (20.8)	0
Nausea	4 (16.7)	0
Tumor pain	4 (16.7)	0
Pain	3 (12.5)	0
Blood alkaline phosphatase increased	2 (8.3)	0
Chills	2 (8.3)	0
Decreased appetite	2 (8.3)	0
Dyspnea	2 (8.3)	0
Gastritis	2 (8.3)	0
Pyrexia	2 (8.3)	0
Small intestinal obstruction	0	1 (4.2)

Disease Control and Tumor Reductions
SD Observed in 8 Participants and Tumor Reduction in 4

Tumor reductions and RECIST response by dose



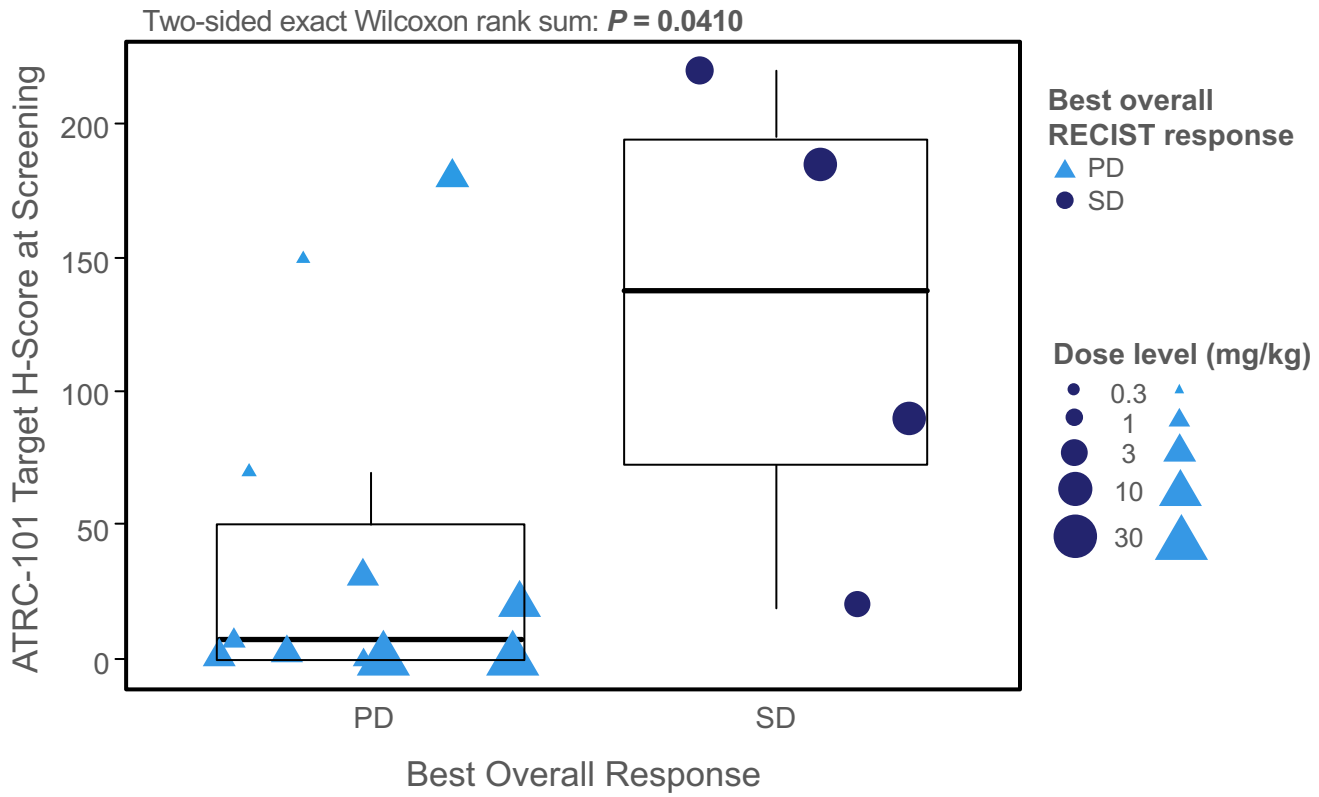
Tumor reductions and RECIST response by tumor type



PD, progressive disease; RECIST, response evaluation criteria in sold tumors; SD, stable disease.

Disease Control Is Associated With Target Expression

Best RECIST response by ATRC-101 target expression



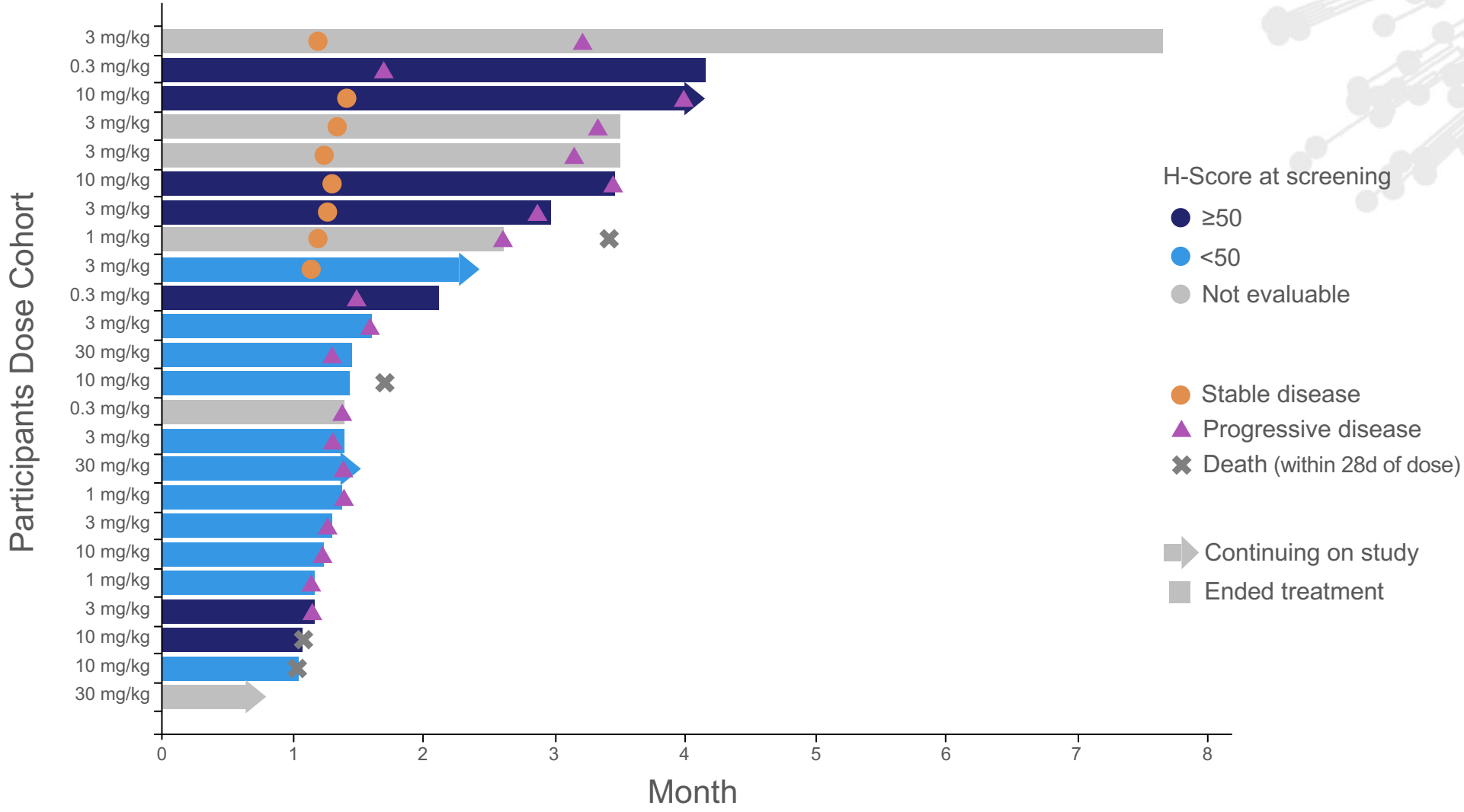
Includes data from 15 RECIST-evaluable participants with H-scores at screening

- **3 of 6 (50%) with H-scores ≥ 50 achieved SD**
- **1 of 9 (11%) with an H-score < 50 achieved SD**
- Statistical significance remains when participants without tumor assessments (n = 3) are assumed to have PD

PD, progressive disease; RECIST, response evaluation criteria in sold tumors; SD, stable disease.

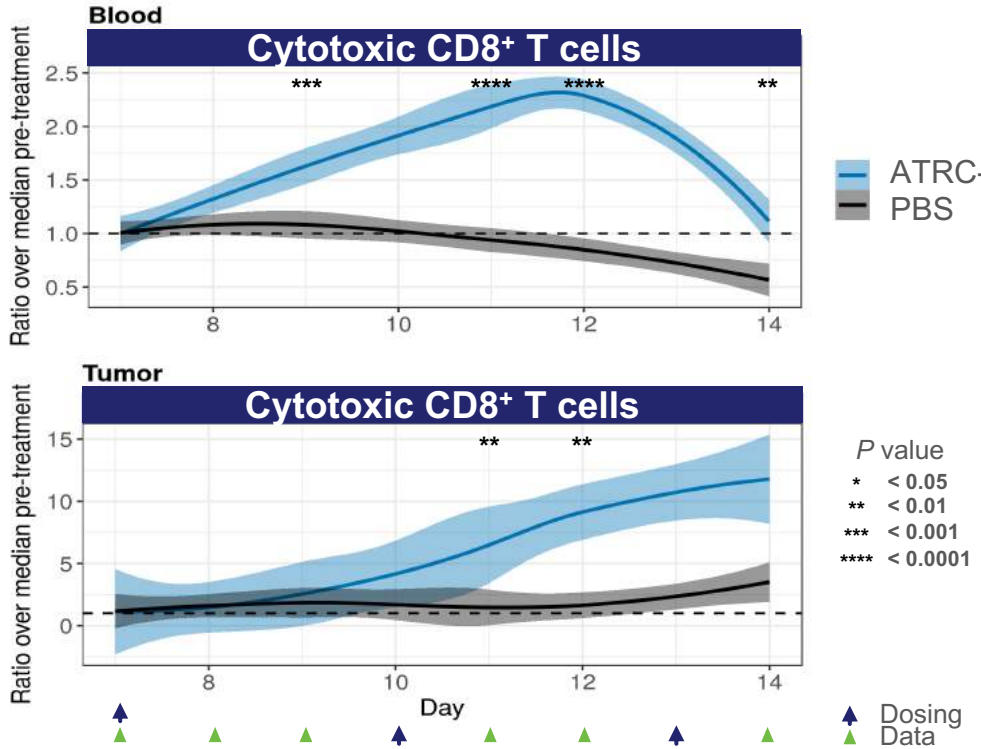
Treatment Duration by Target Expression and Dose

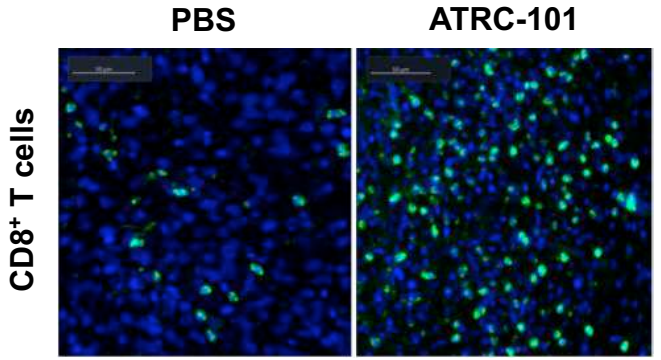
Multiple Participants Treated Beyond Radiographic Progression



ATRC-101 Changes the Immune Cell Profile of the Tumor Microenvironment and Blood in Animal Models

ATRC-101 dosing increases CD8⁺ T cells in EMT6 mouse blood and tumors



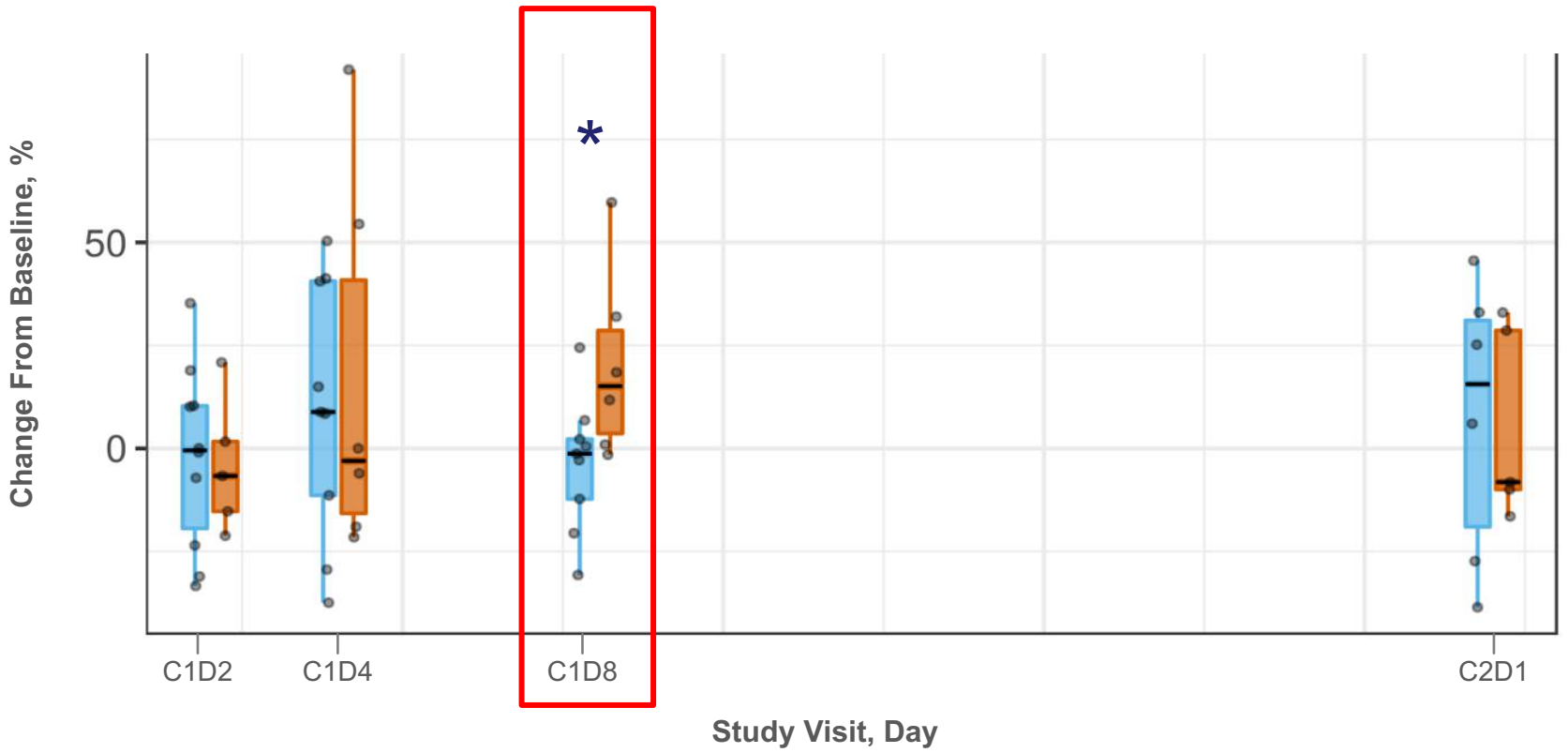


- Cytotoxic CD8⁺ T cells in blood were significantly higher in EMT6 mice treated with ATRC-101 by Day 9
- CD8⁺ T cells appear in the tumor in significant numbers after a brief delay, consistent with their activation in and trafficking from lymph nodes
- Data on other cell types (eg, dendritic cells, NK cells, and macrophages) and cytokines and chemokines were also consistent with the Atreca-hypothesized MOA

MOA, mechanism of action; NK, natural killer; PBS, phosphate-buffered saline.

CD8+ T Cell Expansion in Peripheral Blood After Treatment with ATRC-101 is Associated With Target Expression

Trend toward increased CD8+ T cells at treatment day 8



Trends in this small population of participants are what would be expected based on preclinical data and consistent with the proposed ATRC-101 MOA

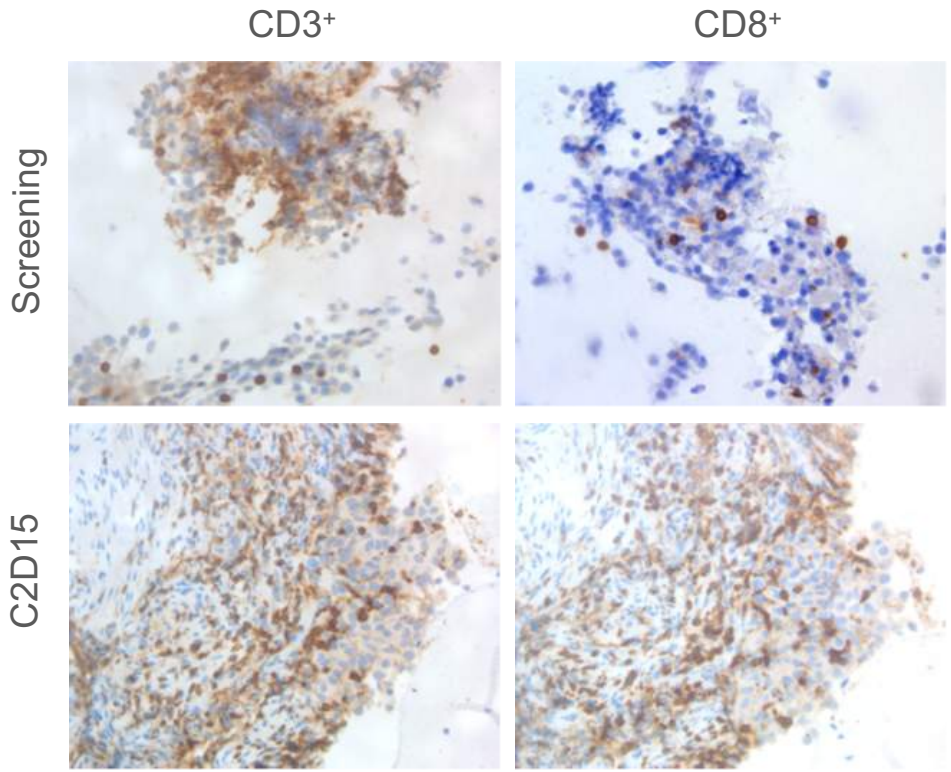
*$P < 0.05$ by Wilcoxon rank-sum test.
C, cycle; D, day; MOA, mechanism of action.

Influx of Cytotoxic T Cells in a Participant with Ovarian Cancer

PARTICIPANT INFORMATION

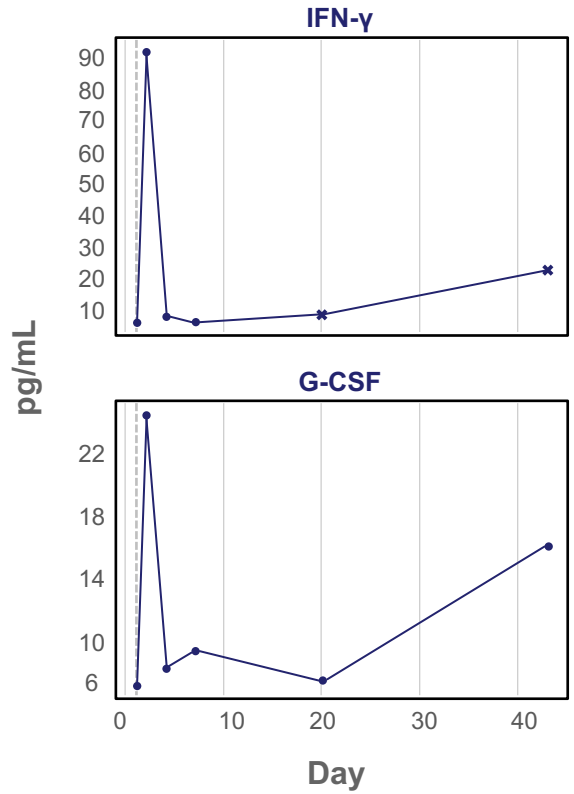
- 69-year-old woman with ovarian cancer
- Lines of prior therapy: 4
- Baseline target H-score: 90
- ATRC-101 exposure: 5 cycles at 10 mg/kg
- Best RECIST response: SD
- Best % tumor reduction: ~4.5%
- Grade 1 and 2 adverse events observed, none ≥ Grade 3

Tumor enrichment of CD8⁺ T cells



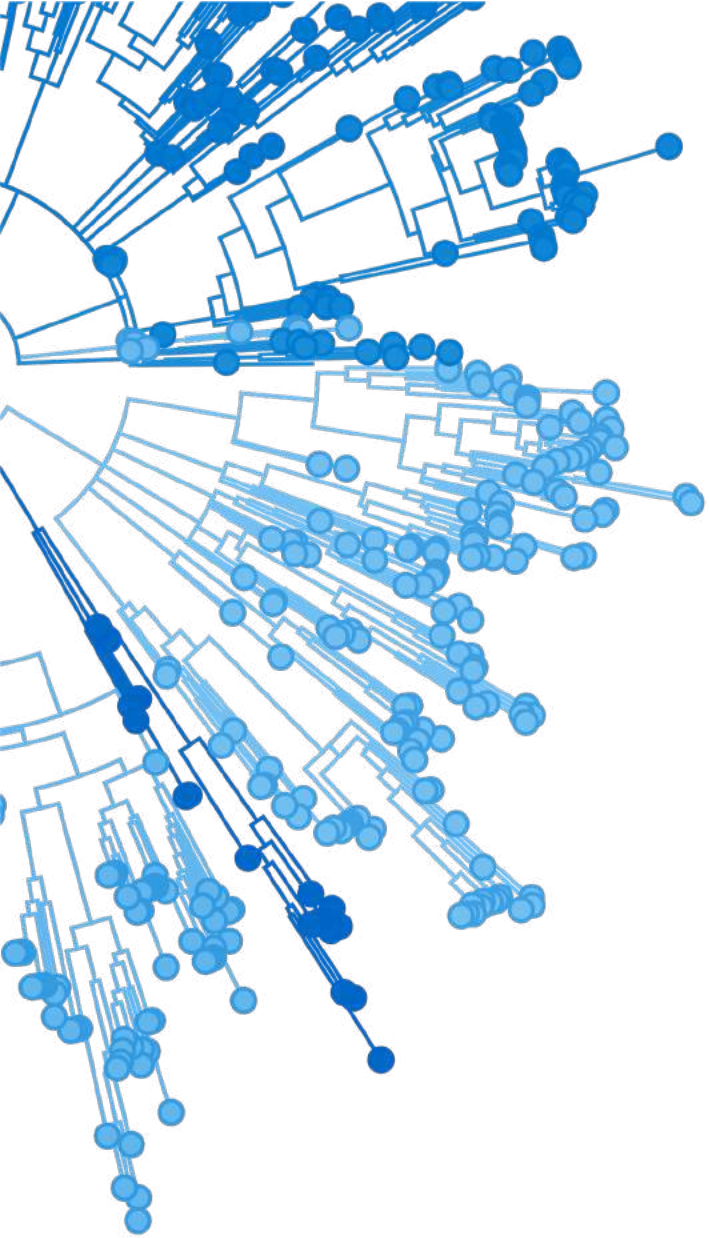
All images 40X.

Dynamics of select cytokines during treatment with ATRC-101



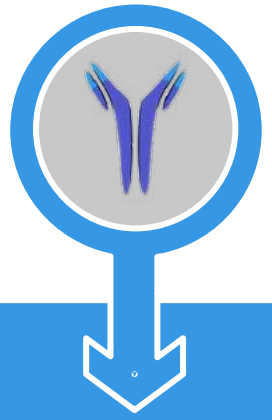
Changes observed with dosing in other cytokines as well

C, cycle; D, day, G-CSF, granulocyte colony-stimulating factor, IFN-γ, interferon gamma, PD, progressive disease; RECIST, response evaluation criteria in sold tumors; SD, stable disease.



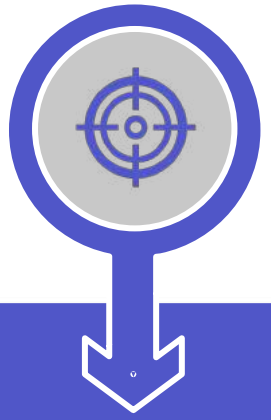
Summary and Future Development Plans

Summary: ATRC-101 exhibits anti-tumor activity consistent with the proposed MOA and was well tolerated at all doses tested



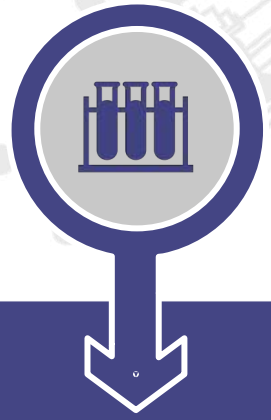
ATRC-101 was well tolerated by participants

- No DLTs observed
- Drug concentration appeared to be dose-proportional



Disease control associated with target expression

- SD in 8 participants and reduction in target-lesion size in 4 of 20 evaluable
- SD in 3 of 6 participants with target expression (screening H-score ≥ 50) and response-evaluable tumors



Biomarker data consistent with proposed MOA

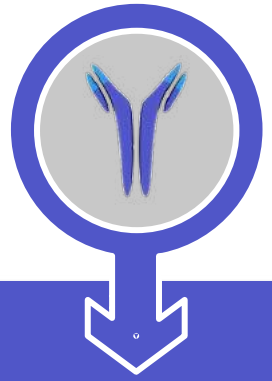
- Expansion of $CD8^+$ T cells observed one week after dosing
- $CD8^+$ T cell infiltration into tumor observed after dosing

DLT, dose-limiting toxicity; MOA, mechanism of action; SD, stable disease.

Development Plans and Next Steps

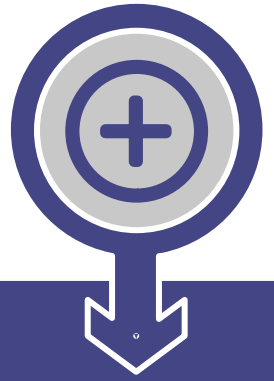
Developing diagnostic to select participants based on target expression

- Expansion of monotherapy cohort will further inform and validate diagnostic



Monotherapy: Treating additional participants at 30 mg/kg

- Continuing to enroll per current protocol
- Expecting to initiate an efficacy cohort (n ≥ 40) at 30 mg/kg
- Anticipating to report additional monotherapy data by mid-2022



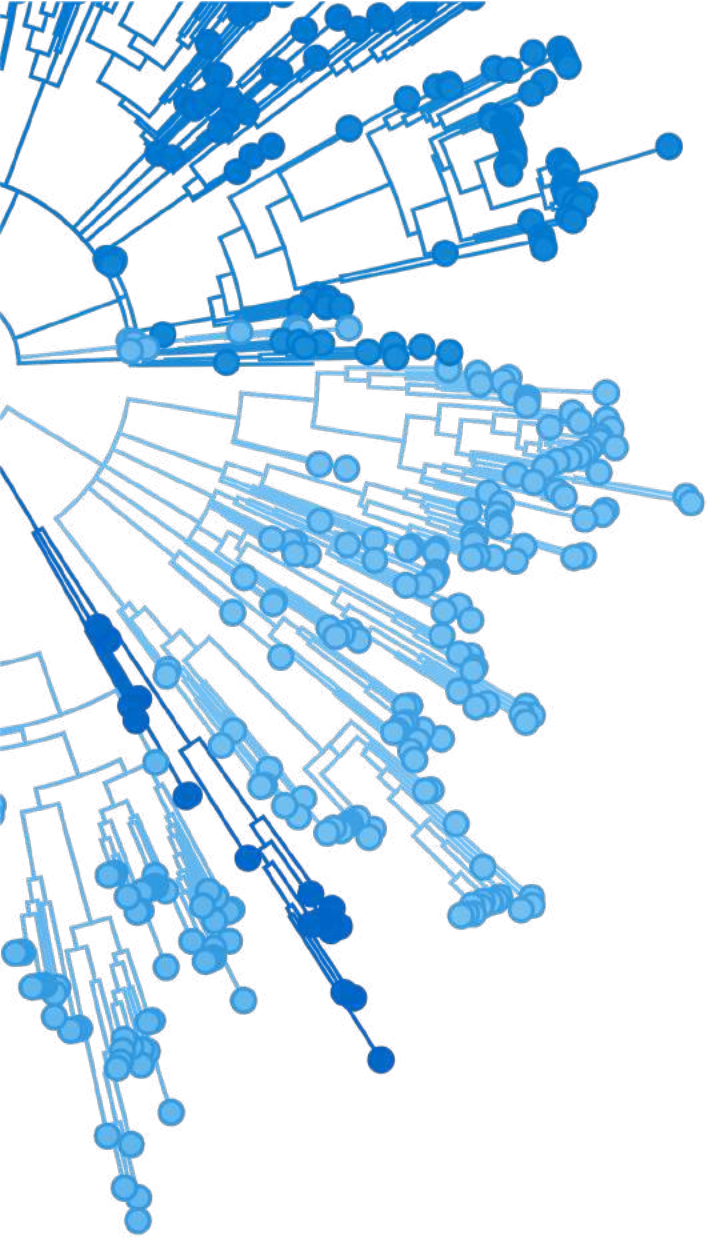
Combination with pembrolizumab

- Observed $CD8^+$ T cell dynamics further support preclinical rationale
- Enrolling participants with advanced solid tumors, including HNSCC, esophageal SCC, HCC, and urothelial, at a starting dose of 10 mg/kg
- Anticipating to report initial data in mid-2022

Combination with chemotherapy

- Rationale: Increased target expression upon dosing with chemotherapy observed in preclinical models
- Anticipating to report initial data in late-2022

HCC, hepatocellular carcinoma; HNSCC, head and neck squamous cell carcinoma; Q21D, every 21 days; SCC, squamous cell carcinoma.

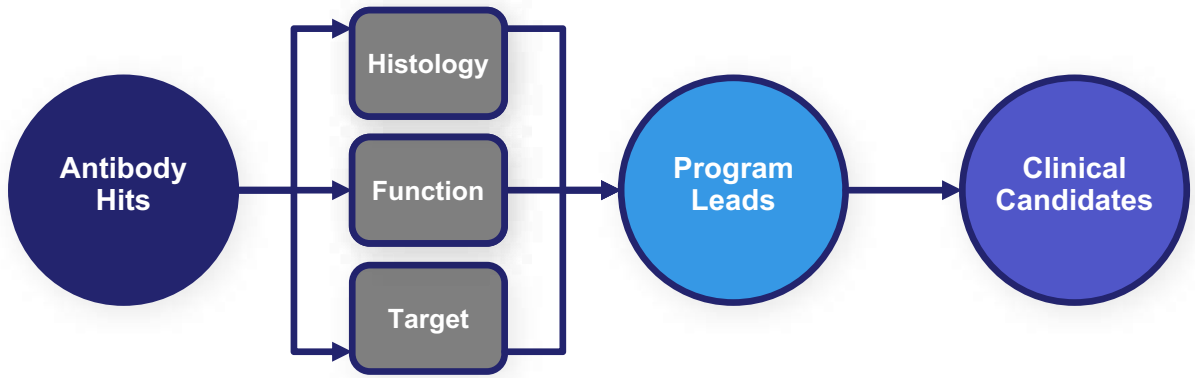


Platform Update

Discovery Platform Continues to Evolve and Deliver

Multiple opportunities for near-term IND candidates with different targets and MOAs

Platform

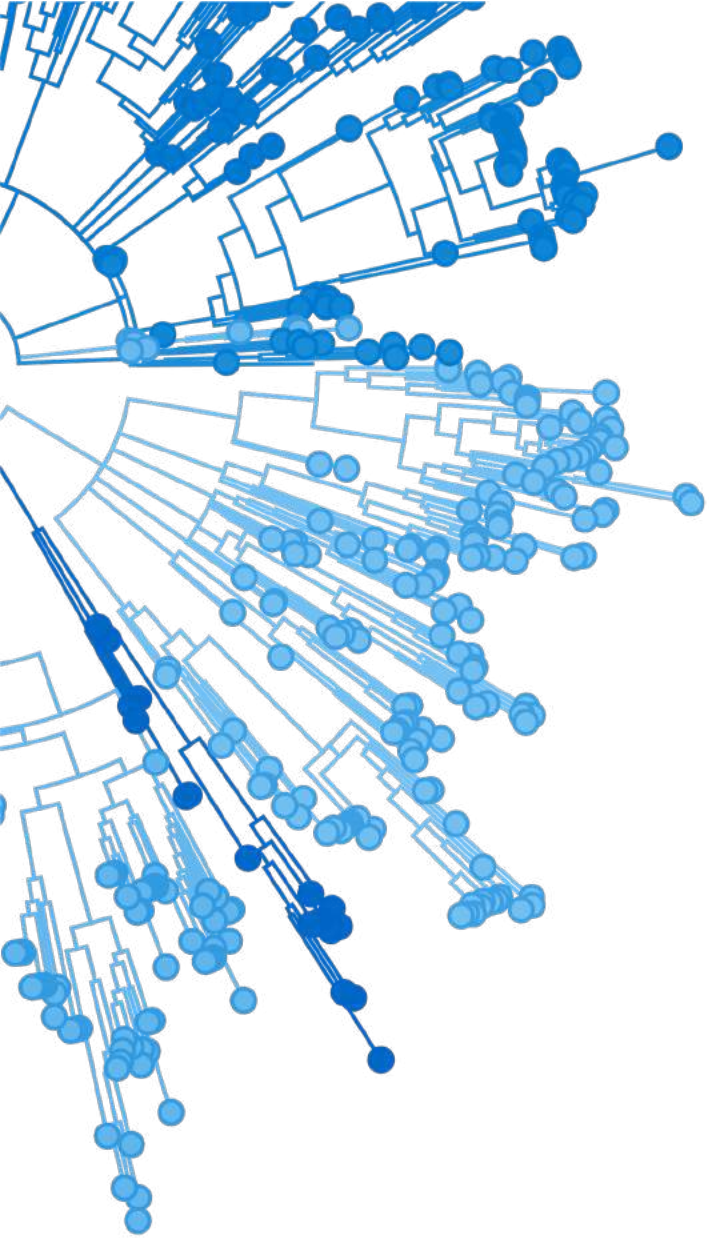


- Phage display-based Immune Repertoire Capture® (P-IRC™) joins traditional IRC® as a complementary and productive approach to generating “hit” antibodies
- Target identification platform continues to evolve with a greater breadth of approaches in-house, delivering an increasing number of targets (42 confirmed to date)

Pipeline

- EphA2 program continues to progress with Fv optimization delivering improved properties
- Emerging Atreca “ADC Engine” delivering multiple novel antibodies displaying activity *in vivo* in ADC format
- Multiple weaponization formats driving tumor-targeted immune cell activation displaying activity *in vivo* and *in vitro* with Atreca antibodies

ADC, antibody–drug conjugate; IND, investigational new drug; MOA, mechanism of action.



Q&A