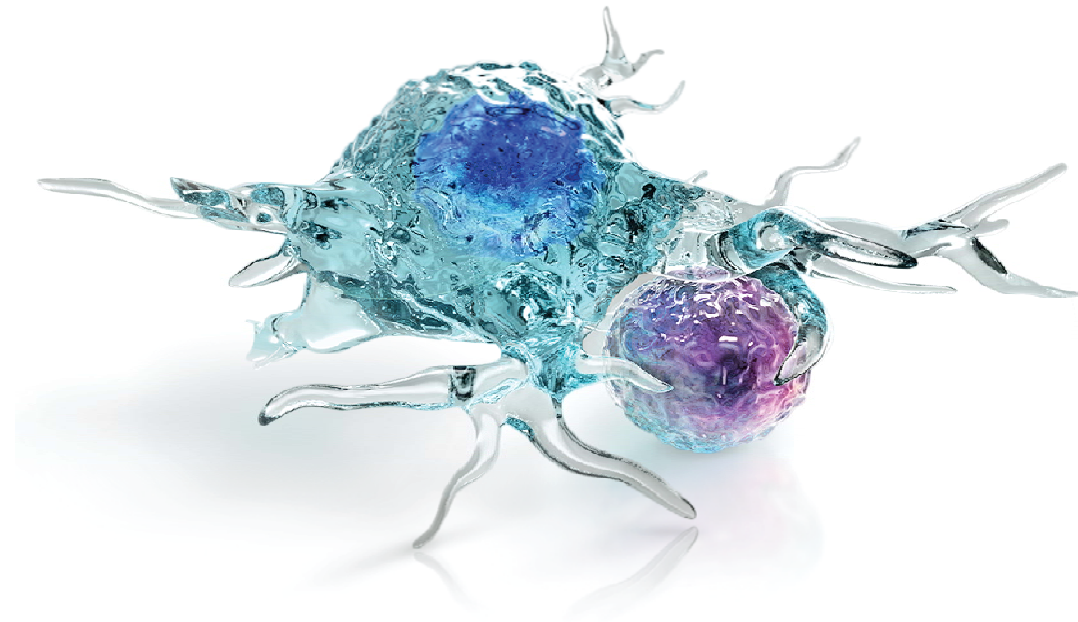




Corporate Overview

May 29, 2020



Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of applicable securities laws. All statements contained herein that are not clearly historical in nature are forward-looking, and the words “anticipate”, “believe”, “expect”, “estimate”, “may”, “will”, “could”, “leading”, “intend”, “contemplate”, “shall”, “propose”, “plan” and similar expressions are generally intended to identify forward-looking statements. Forward-looking statements in this presentation include statements about, without limitation, the clinical plans and objectives for our TTI-621 and TTI-622 programs, our expectation about the timing of achieving certain milestones relating to our programs and our belief that our programs could achieve best-in-class status for CD47 blocking agents.

These forward-looking statements involve risks and uncertainties that may cause actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, but are not limited to, Trillium's ability to obtain financing to advance the products in its development portfolio; changing market conditions; the successful and timely completion of pre-clinical and clinical studies; the severity, duration and spread of the COVID-19 outbreak, as well as the direct and indirect impacts that the pandemic may have on our operations; the establishment of corporate alliances; the impact of competitive products and pricing; new product development risks; uncertainties related to the regulatory approval process or the ability to obtain drug product in sufficient quantity or at standards acceptable to health regulatory authorities to complete clinical trials or to meet commercial demand; and other risks detailed from time to time in Trillium's ongoing quarterly and annual reporting.

A discussion of risks and uncertainties facing Trillium appears in Trillium's Form 40-F for the year ended December 31, 2019 filed with the U.S. Securities Exchange Commission and available at www.sec.gov and www.sedar.com, each as updated by Trillium's continuous disclosure filings, which are available at www.sedar.com and at www.sec.gov. Forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein. Any forward-looking statements speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation, whether as a result of new information, future events or results or otherwise. All forward-looking statements herein are qualified in their entirety by this cautionary statement.

Company Highlights

Leading CD47 player

- Clinical stage immuno-oncology company with focus on CD47
- Comprehensive clinical development program, with lead molecule that demonstrated monotherapy bioactivity in hematologic malignancies

Two differentiated molecules with best-in-class potential






- TTI-621 (SIRP α -IgG1 Fc): 200+ patients dosed; monotherapy activity in multiple indications at initial low doses; no red blood cell (RBC) binding; further dose escalation ongoing
- TTI-622 (SIRP α -IgG4 Fc): Strong safety profile with no RBC binding; initial dose escalation in progress

New leadership & cash position

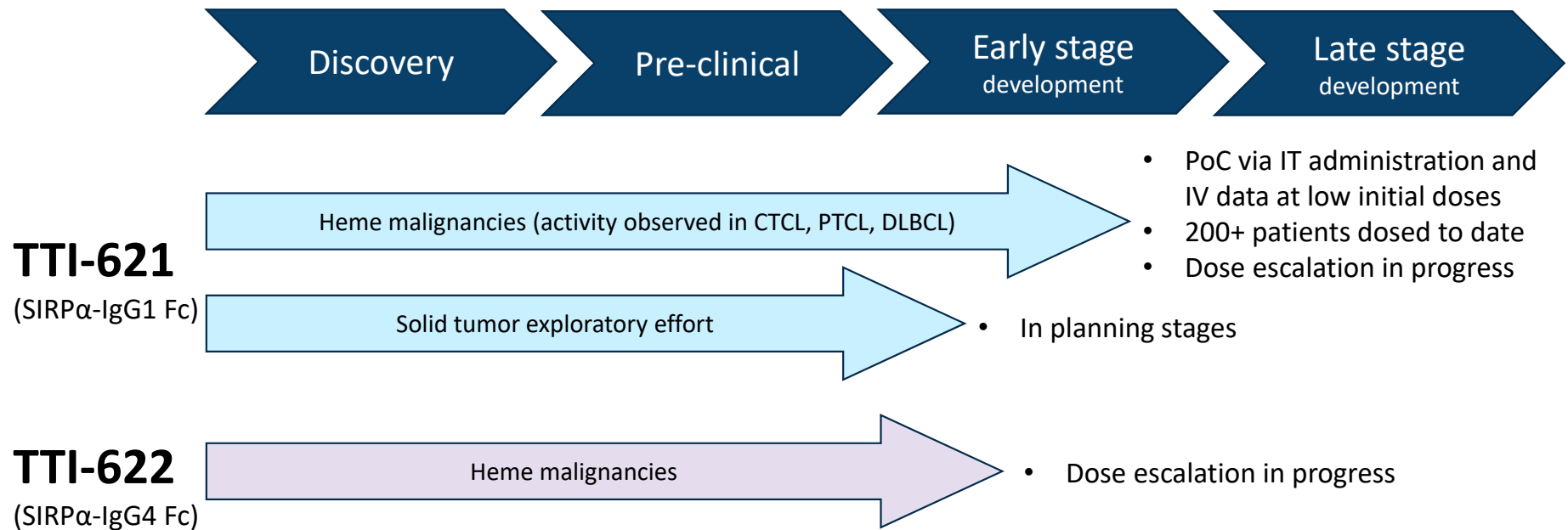
- CEO change end of September 2019
- Wide-ranging transformation program completed
- Raised \$117M in January; ~\$135M in cash & equivalents as of 3/31/20

Transformation Program Under New CEO

Priorities and progress since September 2019

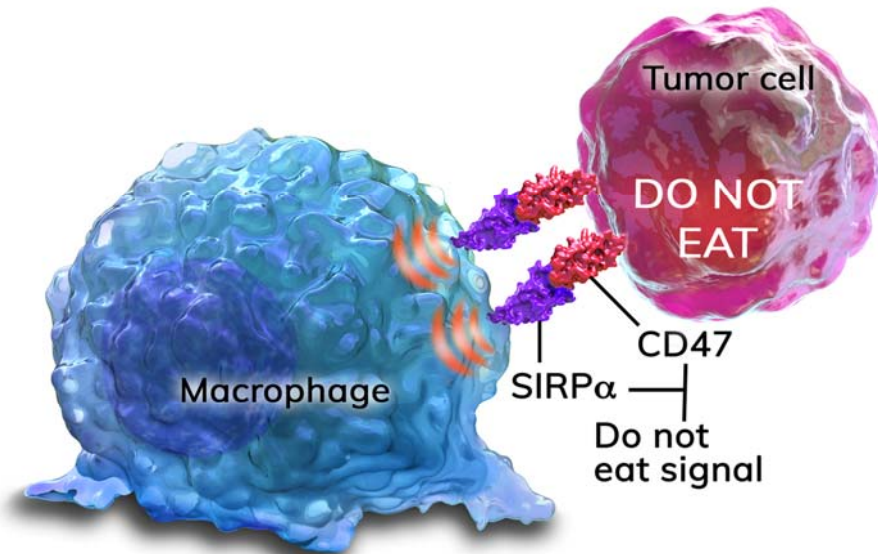
- 1 Restructure footprint and cut cash burn**
Reduced staff by 40%; strengthened clin. dev. team; reduced cash burn till funding  Completed (Oct 2019)
- 2 Revise strategy & portfolio priorities**
Discontinued lead intratumoral (IT) program in CTCL; refocused on IV programs in large heme malignancy indications and exploratory IT effort in solid tumors  Completed (Nov-Dec 2019)
- 3 Secure funding**
Raised \$117M in public offering from top healthcare investors  Completed (Jan 2020)
- 4 Ensure execution of ongoing clinical studies**
Reallocated resources to existing 621 & 622 dose escalation studies  In progress
- 5 Strengthen the organization and key capabilities**
Added new board member; forming SAB & KOL panels; further evolving the org.  In progress

Pipeline Overview



Tumors Use CD47 “Do Not Eat” Signal to Evade Destruction by Innate Immune System

CD47 Pathway in Cancer



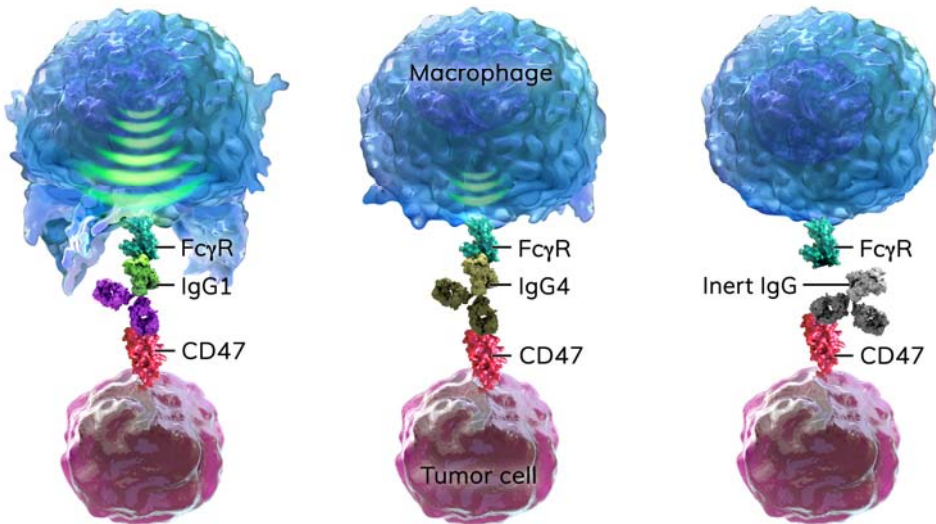
- Many hematologic and solid tumors express high levels of CD47
- High CD47 expression correlated with aggressive disease & poor outcomes
- CD47 delivers an inhibitory **“do not eat”** signal to macrophages through SIRP α



CD47 blockade emerging as a next-generation checkpoint inhibitor strategy in immuno-oncology

CD47 Blockade Alone Not Sufficient; Fc Region Is Critical When Blocking CD47

Potency



IgG1 Fc region provides superior activation by engaging Fc receptors

IgG1 format provides the highest likelihood of monotherapy activity

Blockers with weaker Fc regions are better suited to combination therapy with agents that deliver an “eat” signal

An IgG1 blocker requires low RBC binding to avoid hemolytic anemia, a distinguishing property of Trillium’s SIRP α Fc format

Trillium Molecules Are Differentiated From Other CD47 Agents on Several Dimensions



Candidate	TTI-621	TTI-622	Magrolimab	ALX148	CC-90002	AO-176	TG-1801
Molecule	WT SIRPαFc fusion protein	WT SIRPαFc fusion protein	CD47 mAb	High aff. SIRPαFc fusion protein	CD47 mAb	CD47 mAb	Bi-spec. Ab CD47/CD19
Fc isotype	IgG1	IgG4	IgG4	Inert IgG1	IgG4	IgG2	IgG1
RBC binding	No	No	Yes	Yes	Yes	Minimal	No
Monotherapy CRs	Yes	No ^a	No	No	No	No data	No data
First-in-human	Feb 2016	Jun 2018	Aug 2014	Feb 2017	Mar 2015	Feb 2019	Mar 2019
Development stage	P1b	P1a	P2	P1	P1 ^b	P1	P1

^a Single CR was observed in the ongoing dose escalation study

^b Monotherapy trial (NCT02641002) discontinued (ASH 2019)

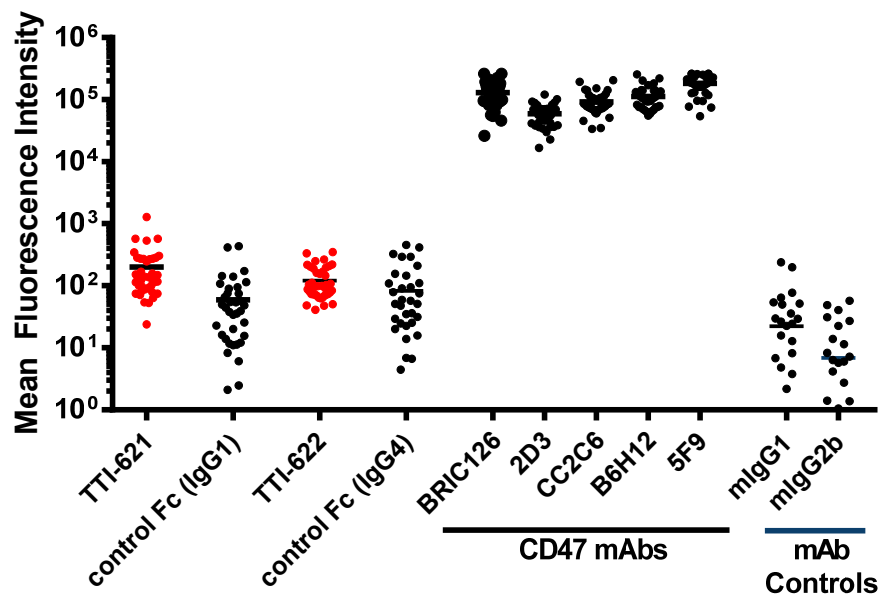
*Sources: Company web sites, publications, presentations and filings; www.clinicaltrials.gov

Other companies with clinical stage CD47-targeting agents: Seattle Genetics, Surface Oncology, I-Mab, Innovent Bio, Jiangsu Hengrui Medicine Co



Unlike Most Other CD47 Agents, TTI-621 & 622 Do Not Bind to Red Blood Cells (RBCs)

TTI-621 and TTI-622 do not bind human RBCs¹



Benefits of RBC avoidance

- Enables use of an IgG1 Fc (provides an activating signal to enable monotherapy)
- Reduces risk of anemia in patients
- Lowers amount of drug required by avoiding massive antigen sink
- Does not interfere with transfusion medicine testing

Petrova et al. Clin. Cancer Res. 2017

¹Results confirmed by independent group (Piccione et al. Clin. Cancer Res. 2016)

Contents

- TTI-621 (SIRP α -IgG1Fc) CD47 program
- TTI-622 (SIRP α -IgG4Fc) CD47 program
- Corporate overview

TTI-621 Highlights

Differentiated and potentially best-in-class CD47 therapeutic

- Unique CD47 blocking agent that also delivers activating (FcR) signal
- Only CD47 agent to produce monotherapy CRs in patients
- No RBC binding, unlike other CD47 agents

Strong clinical PoC via *intratumoral* administration

- Established via P1b/2 study in CTCL
- Over 90% of patients show rapid lesion improvement, most within two weeks

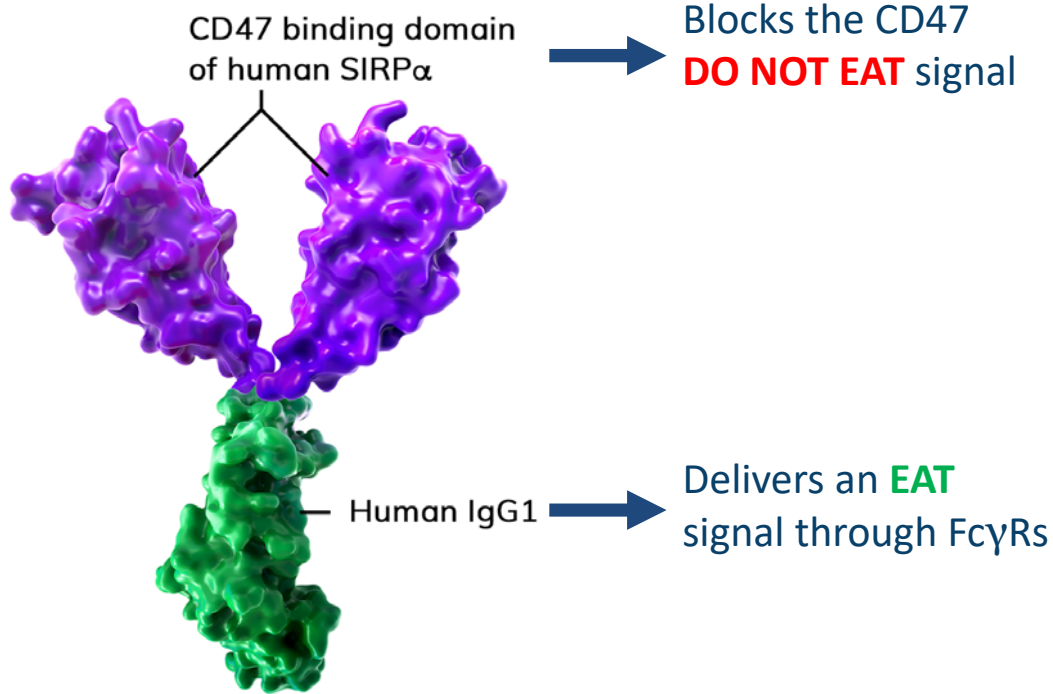
Broad heme malignancy *IV* program now in dose optimization

- 200+ patients treated to date across range of heme malignancies
- Monotherapy responses observed in CTCL, PTCL, DLBCL at low doses
- Dose optimization in CTCL currently in progress

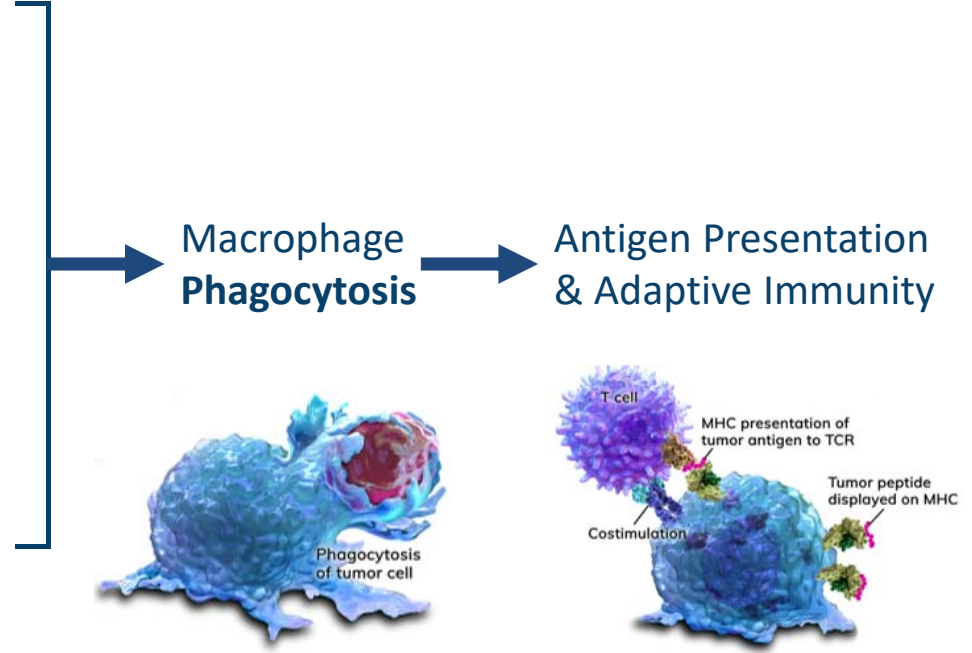
Abbreviations: CR – Complete Response; RBC – Red Blood Cell; CTCL – Cutaneous T-Cell Lymphoma; PTCL – Peripheral T-Cell Lymphoma; DLBCL – Diffuse Large B-Cell Lymphoma; IV - Intravenous

TTI-621 is a Dual Function SIRP α Fc Decoy Receptor that Blocks “Do Not Eat” Signal and Delivers “Eat” Signal

TTI-621



TTI-621 Mechanism of Action



TTI-621 Demonstrated Clinical PoC via *Intratatumoral* Injection in CTCL

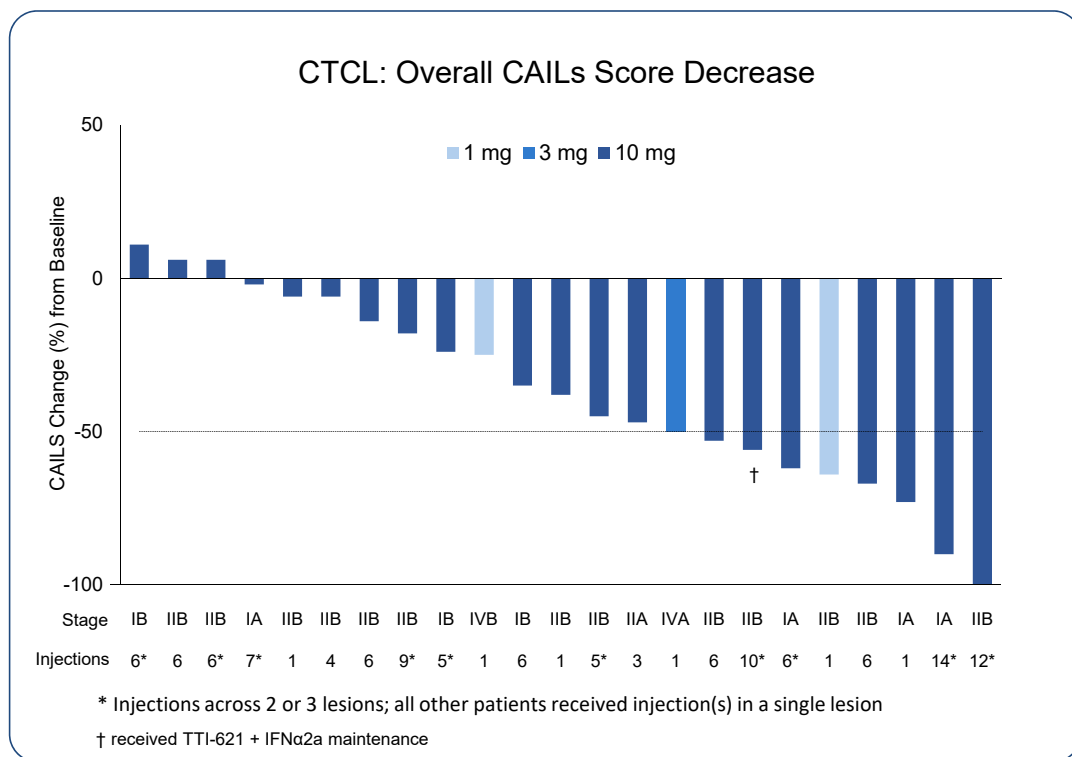
- **Phase 1 dose escalation & expansion study**
 - Data from 22 response-evaluable CTCL patients shown in this presentation
 - NCT02890368
- **Dosing regimens evaluated**
 - Single dose injections @ 1, 3 or 10 mg
 - Multiple injections @ 10 mg 3x/wk for 1-2 wks
 - Induction regimen (10 mg 3x/wk for 2 wks) followed by discretionary continuation therapy of weekly injection of 10 mg
- **Local injections very well tolerated**
 - No drug related ≥Grade 3 AEs, SAEs or DLTs



85M with stage IIB MF with large cell transformation who failed 4 prior systemic therapies, PUVA and radiation received a **single 10 mg injection** of TTI-621 into the proximal lesion on the left foot
Querfeld et al. ASH 2017

- **Clear signal of monotherapy activity with rapid onset**
 - Rapid responses in both injected and adjacent lesions
 - Initial evidence of systemic response in distal lesions
 - Anecdotal evidence of promising durability (>1 year) in one patient

TTI-621 Intratumoral Injections in CTCL Induce Rapid Lesion Reductions



CAILs* Scores in CTCL Patients (N=22)

- 20 (91%) with decreased CAILS
- 9 (41%) with ≥50% reduction in CAILS

CAILs Decline Profile

- Within 2 **weeks** in most patients (incl. after single injection)
- At **all dose levels**
- In **all stages IA to IVB**
- In **all lesion types**



Querfeld et al. ASH 2018

*CAILs - Composite Assessment of Index Lesion Severity, a measure of local lesion responses

Patient example: CTCL Patient Receiving Single Agent Intratumoral TTI-621 Therapy

Injected Lesion – T01 (Left Calf)



Screening

End of Week 7

End of Week 11

Distal Non-Injected Lesion – Abdomen



Screening

End of Week 2

End of Week 9

- 76-year old female with Stage IIB transformed MF, who had received prior bexarotene and methotrexate treatments, achieved CAISL-based CR on target lesions by Week 15 and overall PR with -85% change in mSWAT by Week 23
- Rapid resolution was observed of the injected lesion on the calf and of distal, non-injected lesions on abdomen, left flank/back and arms.

Querfeld et al. ASH 2018

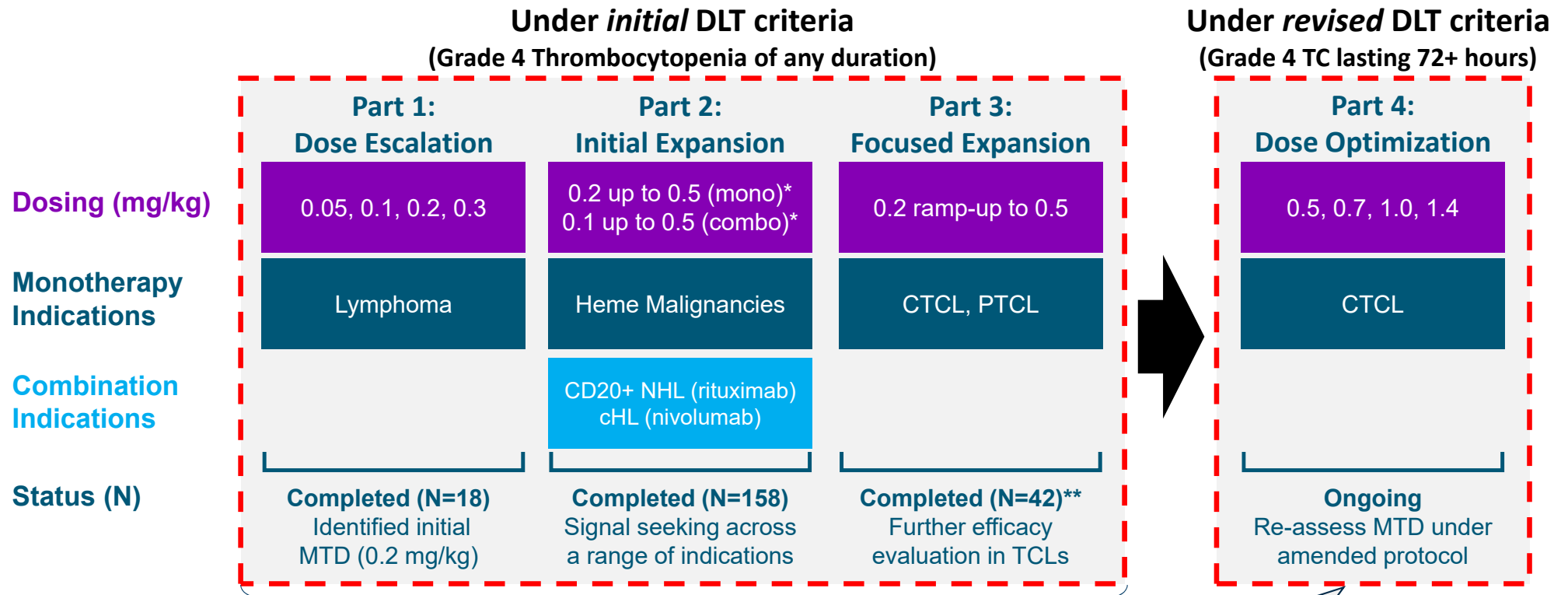
Intravenous TTI-621 Shows Monotherapy Activity at Low Doses in Heme Malignancies; Dose Escalation is Ongoing

- **Phase 1, multicenter, open-label study in relapsed/refractory hematologic malignancies (NCT02663518)**
 - Over 200 patients dosed to date (Dec 2019)
- **Dosing evolution** after determining transient nature of the on-target AE thrombocytopenia (TC)
 - Initial MTD determined as 0.2 mg/kg based on conservative DLT definition of TC (Grade 4 of any duration)
 - TC subsequently shown to be transient and not associated with bleeding, resulting in the revision of TC DLT definition (Grade 4 lasting 72+ hours) and dose re-escalation beyond initial MTD
 - Now escalating dose up to 1.4 mg/kg, potentially higher (as of April 2020, dosing at 1.4 mg/kg)
- **Objective responses (incl. CRs) observed at initial low dose levels (up to 0.5 mg/kg) with monotherapy**

Indication	DLBCL	CTCL	PTCL
Response evaluable N	7	42	22
Objective response rate	29%	19%	18%

- Only CD47 agent to show multiple CRs with monotherapy

IV TTI-621 Dose Escalation Study Overview



Data for CTCL, PTCL & DLBCL on following pages



*Most patients dosed at 0.2 mg/kg; some patients dose-intensified up to 0.5 mg/kg per investigator discretion

**Simon 2-stage design study; Stage 1 completed; Stage 2 on hold and replaced with Part 4 dose escalation

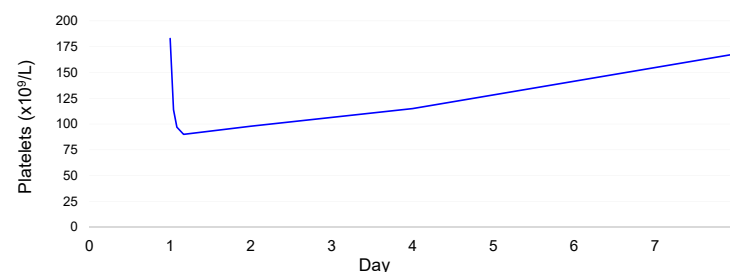
- 0.5, 0.7 & 1.0 cohorts completed
- 1.4 cohort ongoing (as of Apr '20)

Thrombocytopenia is *Transient* and Not Associated with Bleeding

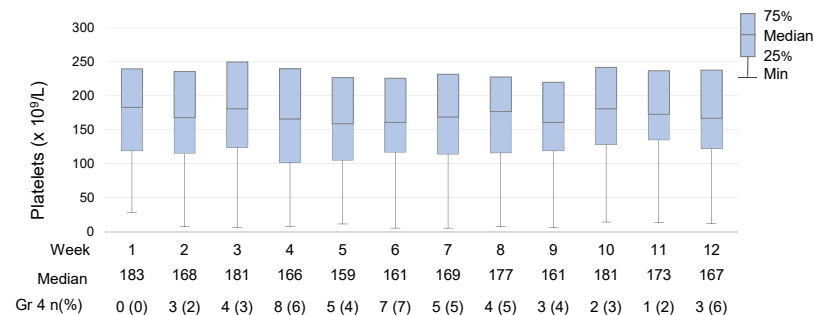
TTI-621 Induced Thrombocytopenia

- On-target effect resulting from CD47 blockade and the TTI-621 IgG1 Fc
- Reversible within a week
- Pre-dose platelet levels remained relatively stable over the study
- Transient platelet decreases did not lead to increased risk of bleeding or impact drug delivery - **1/179 patients had dosing discontinued due to thrombocytopenia**

Median Platelet Levels in All Subjects During Week 1 (N=179)

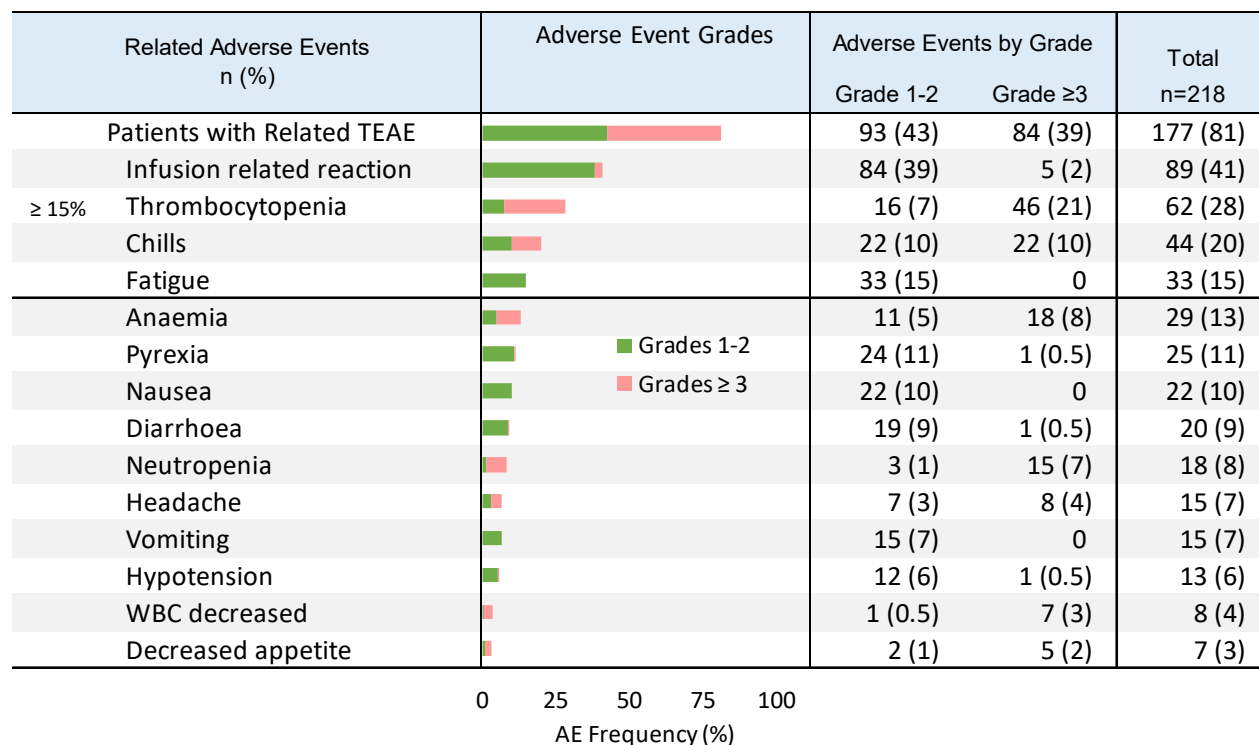


Pre-dose Platelet Levels in All Subjects Over Study Course (N=179)



IV TTI-621 is Well Tolerated

- Diverse patient population: AML, MDS, MPN, B-NHL, T-NHL, HL, MM, CLL, SCLC (N=218)
- Dose range: 0.05-0.5 mg/kg; most dosing exposure at 0.2 mg/kg
- Most frequent AEs were low-grade infusion related reactions and thrombocytopenia
- \geq Grade 3 thrombocytopenia occurred in 21% patients (15% in lymphoma patients)



Source: 01 October 2019 data cut

621-IV Monotherapy Effect Observed Across Lymphoma Indications at Initial Low Doses up to 0.5 mg/kg

In Patients receiving weekly doses of up to 0.5 mg/kg

Indication	Therapy	Response evaluable N	CR	PR	ORR
CTCL	621 monoTx	42	1 (3%)	7 (17%)	8 (19%)
PTCL	621 monoTx	22	2 (9%)	2 (9%)	4 (18%)
DLBCL	621 monoTx	7	1 (14%)	1 (14%)	2 (29%)

CTCL data

621 IV Monotherapy with Dosing up to 0.5 mg/kg

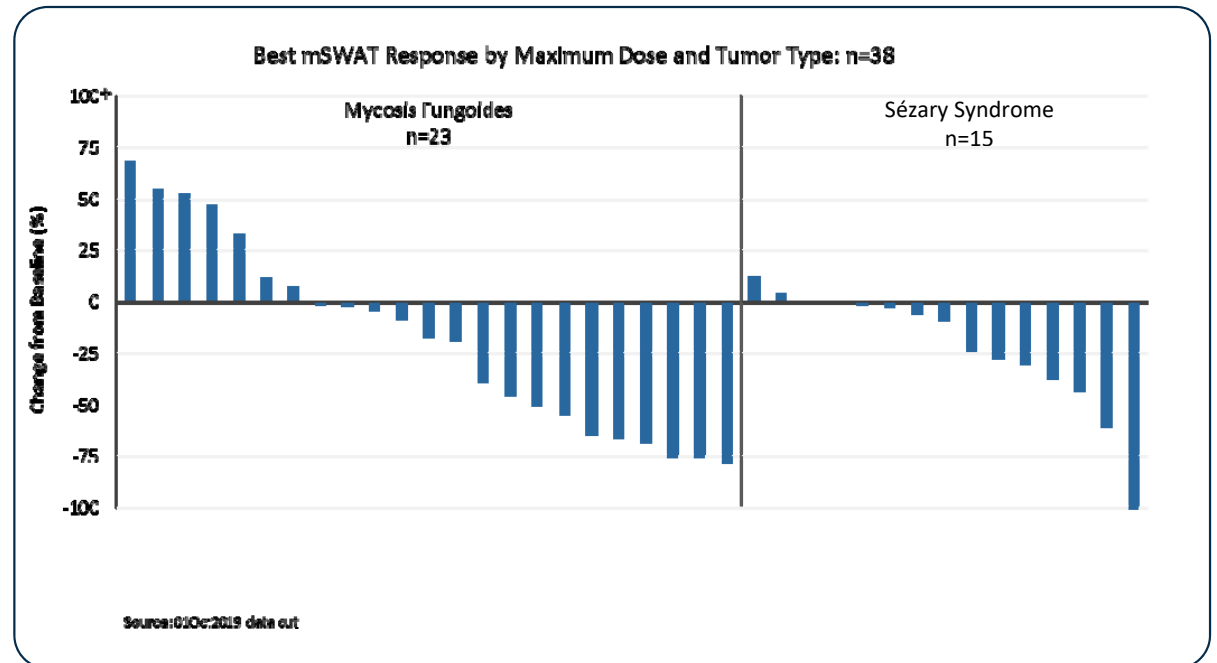
Patient characteristics

	CTCL
N (enrolled)	50
% stage III+ at diagnosis	52%
# prior systemic Tx, median (min-max)	5 (1-26)

Response data

	Resp. eval. N	Response, n (%)		
		CR	PR	ORR
MF	26	--	6 (23%)	6 (23%)
SS	16	1 (6%)	1 (6%)	2 (13%)
Total	42	1 (2%)	7 (17%)	8 (19%)

Patient-level data



All subjects started at 0.2 mg/kg; 4 subjects are not included due to missing mSWAT scores (PD 3, PR 1); 2 Sézary Syndrome subjects had 0% change in mSWAT score.

PTCL data

621 IV Monotherapy with Dosing up to 0.5 mg/kg

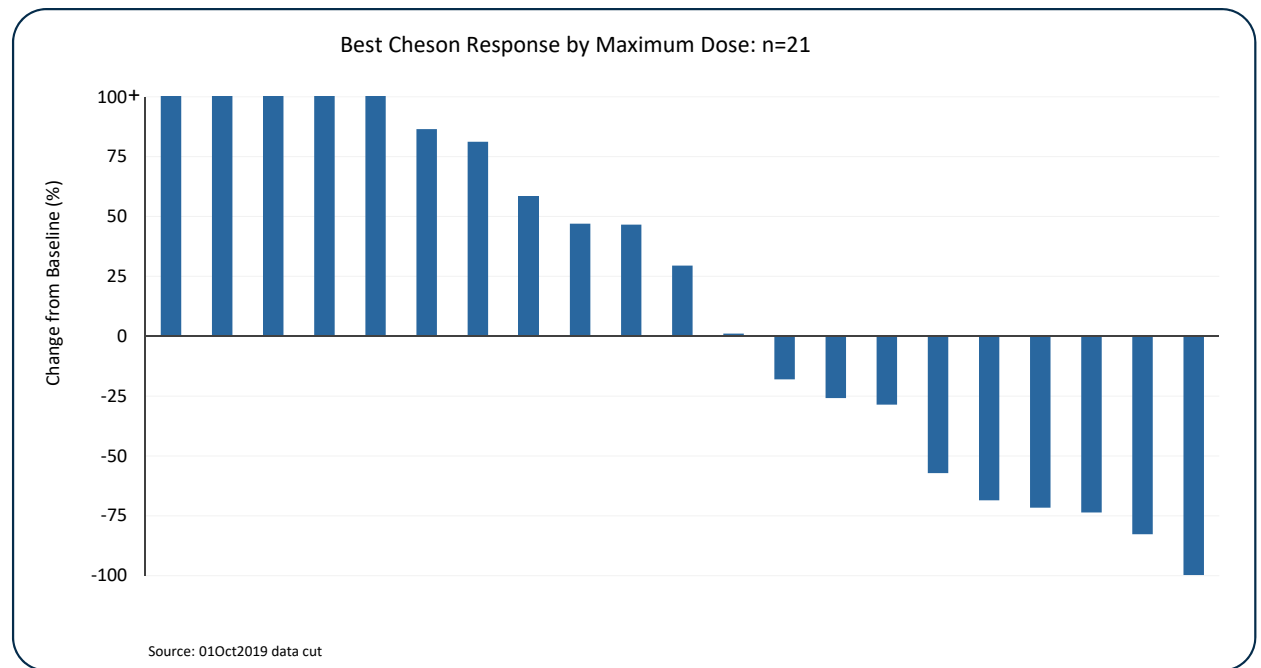
Patient characteristics

	PTCL
N (enrolled)	32
% stage III+ at diagnosis	78%
# prior systemic Tx, median (min-max)	3 (1-7)

Response data

Resp. eval. N	Response, n (%)		
	CR	PR	ORR
22	2 (9%)	2 (9%)	4 (18%)

Patient-level data



All subjects received 0.2 mg/kg starting dose; 1 subject (PD) was not included due to missing Cheson response measurement.

*Response evaluable

DLBCL data - 621 IV Monotherapy and Rituximab Combination with Dosing up to 0.5 mg/kg

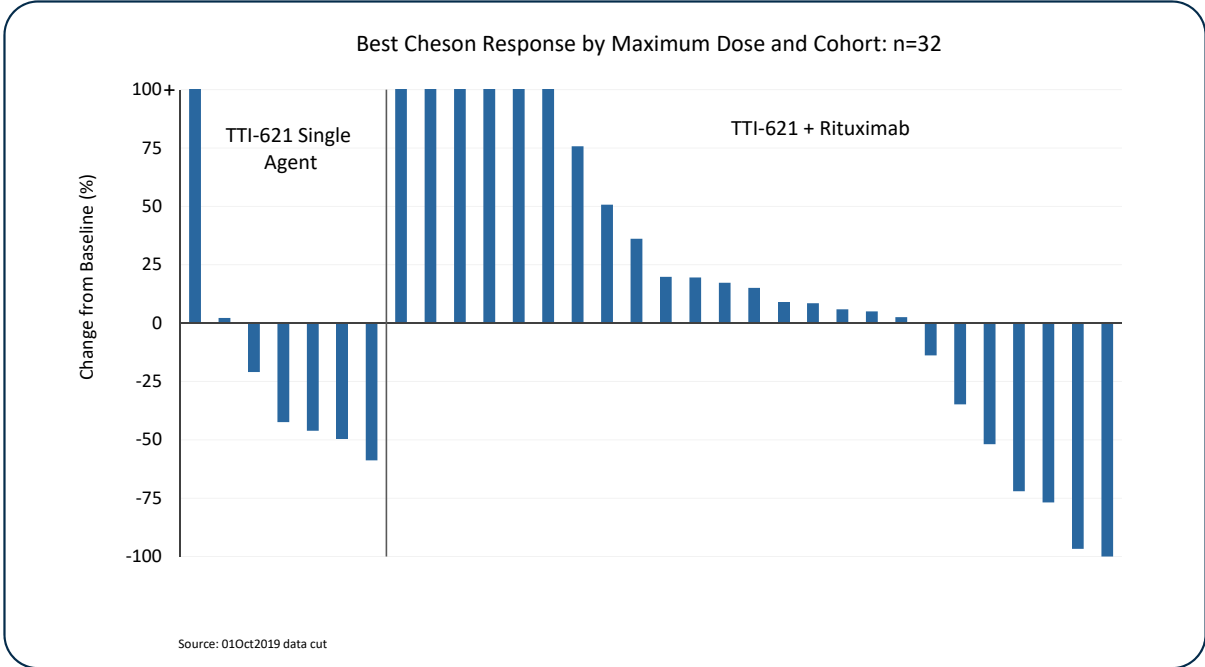
Patient characteristics

	621	621+Rtx
N (enrolled)	9	28
% stage III+ at diagnosis	78%	79%
# prior systemic Tx, median (min-max)	3 (2-8)	4 (2-10)

Response data

	Resp. eval. N	Response, n (%)		
		CR	PR	ORR
621	7	1 (14%)	1 (14%)	2 (29%)
621+Rtx	25	1 (4%)	5 (20%)	6 (24%)
Total	32	2 (6%)	6 (19%)	8 (25%)

Patient-level data



Starting doses for single agent TTI-621 ranged from 0.05 to 0.3 mg/kg and for rituximab combination 0.1 mg/kg



Data cut: 10/1/2019

Patient example: PR after 16 Weeks of Single Agent IV TTI-621 Treatment in Sezary Syndrome Patient



Screening

Week 16

A 69 year old female with Stage IVA Sézary Syndrome, who has failed prior systemic Bexarotene and Romidepsin treatments, achieved an overall PR at week 16 with a 57% decrease in mSWAT.

Even at Low Doses, IV TTI-621 Is the Only CD47 Agent Observing Meaningful Single Agent Responses

Key Points

- TTI-621 exhibits superior monotherapy activity vs. other CD47-targeting agents
- TTI-621 activity is seen at up to 100x lower doses
- Competing programs focused on combinations

	TTI-621 (Trillium)	Hu5F9 (Forty Seven)	ALX148 (ALX Oncology)	CC-90002 (Celgene)	SRF231 (Surface Oncology)
N	48	44 & 10	15		
ORR with MonoTx agents	<p>18-29% ORR in B- and T-cell lymphomas at up to 0.5 mg/kg*</p> <p><i>*Further dose escalation ongoing (now dosing at 1.4)</i></p>	<p>5% ORR in solid tumors and lymphomas at ≥ 20 mg/kg¹</p> <p>10% ORR in AML/ MDS at 30 mg/kg²</p>	<p>0% ORR in solid tumors at ≥ 10 mg/kg³</p>	<p>Monotherapy study in AML/MDS terminated due to lack of efficacy, doses up to 4 mg/kg⁴</p>	<p>Monotherapy expansion phase discontinued⁵</p>

¹NCT02216409; Sikic, JCO 2019

²NCT03248479; ASCO 2019

³NCT03013218; Lakhani, ASCO 2018

⁴NCT02641002; Zeidan, ASH 2019

⁵NCT03512340; Surface Oncology strategic reset (Dec 2018)

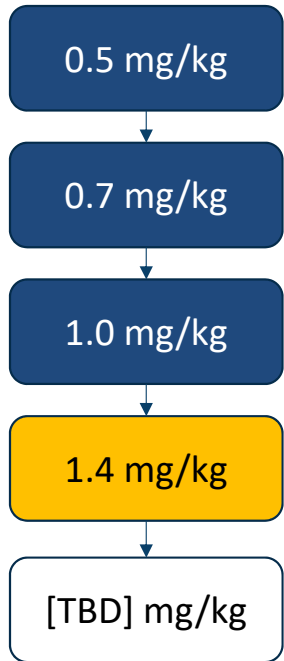
TTI-621 Part 4: Now Enrolling at 1.4 mg/kg

Completed

Ongoing

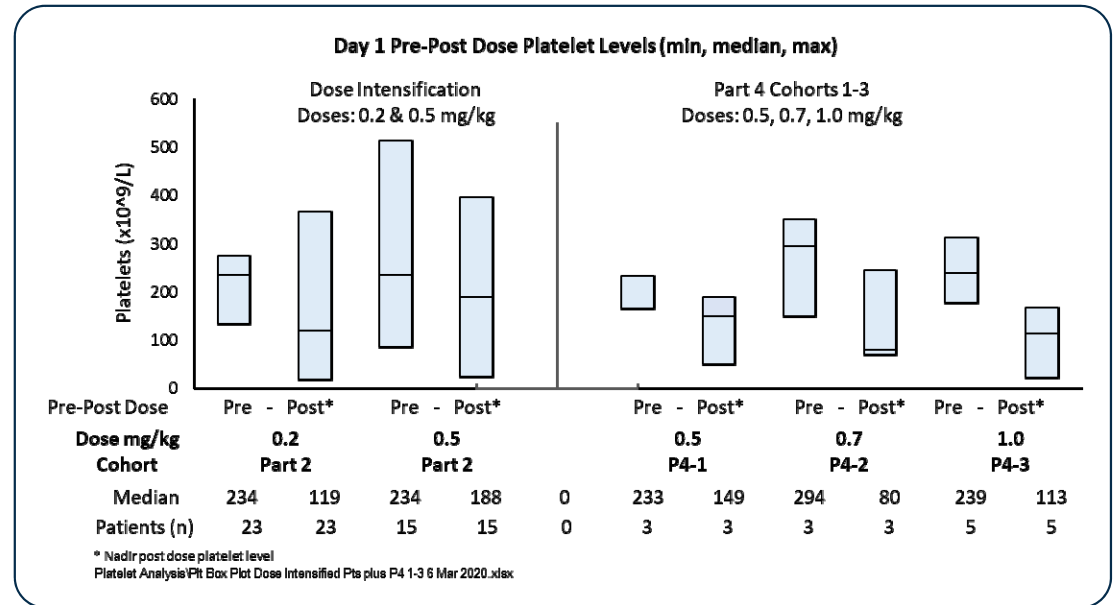
Planned, if appl.

Cohorts



- Relapsed & refractory CTCL patients
- 3+3 escalation schema
- Stable dose in each cohort (i.e., no priming)
- Weekly infusions
- Treat to progression

No apparent dose dependency in platelet decreases with doses from 0.2 – 1.0 mg/kg



Near-term TTI-621 Clinical Development Plan: Move to Combo Therapies in Major Heme Malignancy Indications

Initial dose finding and signal seeking

- Completed
- Monotherapy
- In wide range of heme malignancies

Dose escalation under revised DLT criteria

- Ongoing, expect to identify MTD in 2020 *(subject to COVID-19 impact)*
- Monotherapy
- In CTCL

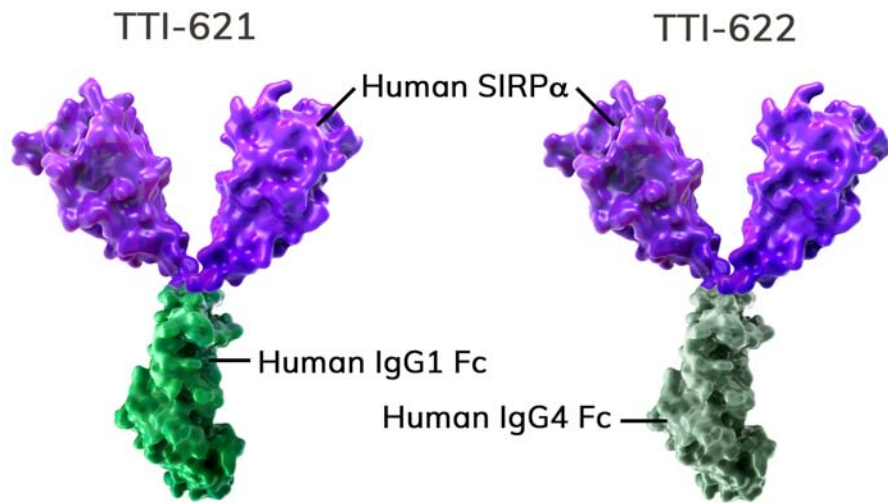
Phase 1b/2 combo studies in larger indications

- In planning stages, initiate new studies in 2020-21 *(subject to MTD timing and Covid-19 situation)*
- Primarily in combinations with other agents; potential monotherapy path in PTCL
- Focus on larger heme malignancy indications (AML/MDS, PTCL, DLBCL, multiple myeloma)

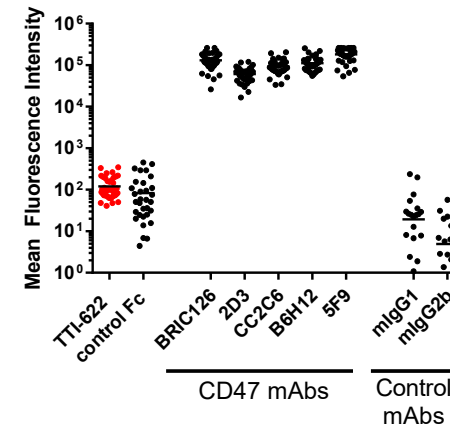
Contents

- TTI-621 (SIRP α -IgG1Fc) CD47 program
- TTI-622 (SIRP α -IgG4Fc) CD47 program
- Corporate overview

TTI-622: A Potential Best-in-Class IgG4 CD47 Blocker *Differentiated by Lack of RBC Binding*



TTI-622 Does Not Bind Human RBCs



Lin et al. AACR 2018

Advantages of TTI-622 vs CD47 mAbs that bind RBCs:

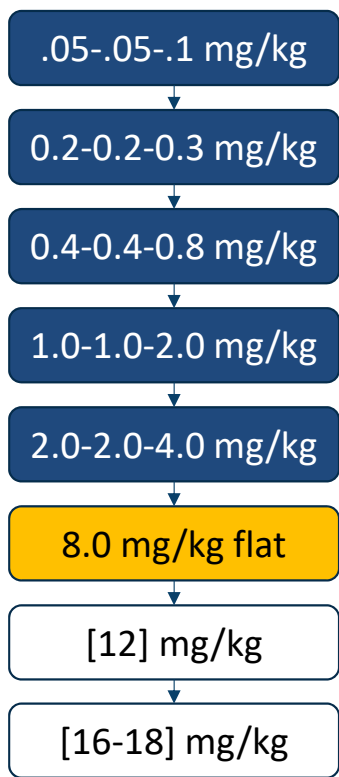
- Reduced risk of anemia
- Avoids massive antigen sink – lowers amount of drug required
- Non-interference with transfusion medicine testing

TTI-622: Now Enrolling at 8.0 mg/kg dose (NCT03530683; in patients with advanced R/R lymphoma)

Completed

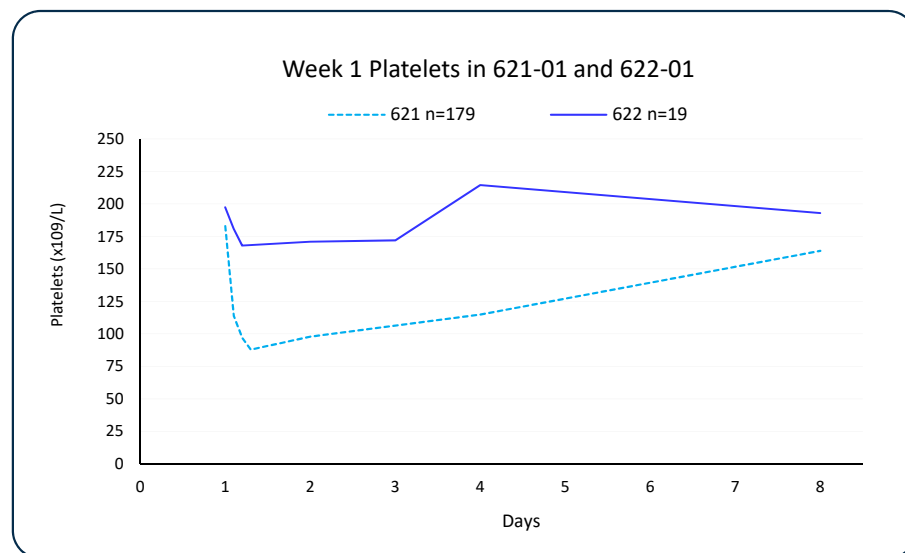
Ongoing

Planned, if appl.



- Relapsed & refractory all-comer lymphomas
- 3+3 escalation schema
- Weekly infusions
- Treat to progression
- Data for first 5 cohorts (in blue):
 - No DLTs/SAEs and no drug related Grade 3+ thrombocytopenia or anemia
 - CR in DLBCL at 0.8 mg/kg (treatment ongoing for 340 days*)
 - PR in DLBCL at 4.0 mg/kg (treatment ongoing for 90 days*)

Median platelet effects modest (compared to TTI-621)



Contents

- TTI-621 (SIRP α -IgG1Fc) CD47 program
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Comprehensive IP, Including Granted Composition of Matter Patents Expiring in 2037-38 (incl. PTE)

1

Composition of Matter

- **TTI-621** Granted in US, EU, Japan, China, AUS;
Expiring Dec. 2033 plus ~4 yrs PTE
Pending in Canada
- **TTI-622** Pending

2

Method of Use

- Use of SIRP α Fc fusion proteins to treat hematologic cancers
- US, Europe, China on appeal
- Granted in Japan, Canada, Australia

3

Combinations

- Macrophage stimulation
 - T cell checkpoint inhibitors
 - HDAC inhibitors
 - Proteasome inhibitors
 - Radiation therapy
 - anti-CD38 antibody
 - anti-EGFR antibody
 - Others (not disclosed)
- Pending

4

Biomarkers

- Biomarkers for CD47 blockade Pending

Highly Experienced Management Team and Directors

Management Team



Jan Skvarka, PhD

Chief Executive Officer



Yaping Shou, MD PhD

Chief Medical Officer



Bob Uger, PhD

Chief Scientific Officer



James Parsons

Chief Financial Officer



Penka Petrova, PhD

Chief Development Officer



Kathleen Large

SVP, Clinical Ops



SANOFI PASTEUR



Prescient NeuroPharma



Board of Directors

Robert Kirkman, MD	Board Chair; Former CEO, Oncothyreon	Michael Moore, PhD DSc	Former CEO, Piramed
Jan Skvarka, PhD	CEO, Trillium	Thomas Reynolds, MD PhD	Former CMO, Seattle Genetics
Calvin Stiller, OC, MD	Chair and Founder, OICR	Helen Tayton-Martin, PhD	CBO, Adaptimmune
Luke Beshar	Former CFO, NPS Pharma	Paul Walker	Partner, NEA



2020 – Key Milestones and COVID-19 Guidance

Pre-COVID-19 Guidance

TTI-621

- Expect to identify MTD or RP2D*
- Provide study update no later than mid-2020
- Initiate at least one study in larger heme malignancy indication

TTI-622

- Expect to identify MTD or RP2D
- Provide study update no later than mid-2020

Current Situation & Guidance

- All active patients continuing on treatment
- Enrollment continuing, though at a slower pace due to Covid-19 restrictions
- Will provide update on study progress & timelines mid-2020, subject to potential delays due to Covid-19

Contact Information

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