NASDAQ: FTSV

Forty Seven

Helping Patients Defeat Their Cancer

Corporate Overview

July 2019

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including statements regarding our future financial condition, results of operations, business strategy and plans, and objectives of management for future operations, as well as statements regarding industry trends, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potentially" "predict," "should," "will" or the negative of these terms or other similar expressions.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things: the success, cost and timing of our product development activities and clinical trials; our expectations about the timing of achieving regulatory approval and the cost of our development programs; our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates; the commercialization of our product candidates, if approved; our plans to research, develop and commercialize our product candidates; our ability to attract collaborators with development, regulatory and commercialization expertise; our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates; future agreements with third parties in connection with the commercialization of our product candidates; our ability to maintain, expand, protect and enforce our intellectual property portfolio; our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of third parties; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; the rate and degree of market acceptance of our product candidates; regulatory developments in the United States and foreign countries; our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately; the success of competing therapies that are or may become available; and our ability to attract and retain key scientific or management personnel. These risks are not exhaustive. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

More information about the risks and uncertainties faced by Forty Seven is contained under the caption "Risk Factors" included in the company's periodic filings with the Securities and Exchange Commission at www.sec.gov. Forty Seven disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Building a Leading Immuno-Oncology Company Focused on Macrophage Checkpoint Therapies

- Unique scientific heritage: Founded by Irv Weissman and colleagues at Stanford University based on a decade of work identifying the CD47-SIRPα pathway as a novel macrophage immune checkpoint
- Rich pipeline of macrophage-directed therapies for oncology and transplant indications
- Great progress with 5F9, the leading CD47 targeting antibody:
  - Positive proof of concept and demonstrated clinical activity that de-risks the program
  - Well-tolerated in >290 patients allowing for multiple combination treatments (including earlier lines)
  - Two potential accelerated approval pathways for MDS and DLBCL
  - Robust IP with priming dose strategy differentiating from all other anti-CD47 agents
- Additional Pharma collaborations fosters expansion of DLBCL indications
  - AstraZeneca/Acerta Pharma collaboration
  - Genentech collaboration expansion
- Lonza initiating 5F9 BLA preparations in close alignment with single arm clinical approaches
- Advancing novel SIRPα and cKIT targeting antibodies towards IND and potential Pharma collaborations
- Cash through Q1 2021

Recent Update: Regional License for 5F9 to ONO Pharmaceuticals

- **On July 10, 2019 Forty Seven entered into an exclusive regional development and commercialization collaboration agreement for 5F9 with ONO Pharmaceuticals**
  - ONO Territory: Japan, South Korea, Taiwan, and ASEAN countries
  - Total Upfront and Milestones: Approximately $120M*
    - Upfront: Approximately $15.8M
    - Regulatory and Commercial Milestones of up to approximately $104M*
  - Royalties: tiered from a mid-teens to low twenties percentage
- **About ONO Pharmaceuticals**
  - Leader in immuno-oncology, markets Opdivo in Japan, S. Korea and Taiwan (2017 Sales $819M)
  - Successful track record of partnering with U.S. biotech companies for novel oncology drugs for Japan:
    - Opdivo from Medarex/BMS
    - Kyprolis from Onyx/Amgen, and
    - Braftovi and Mektovi from Array/Pfizer
- **Transaction Rationale**
  - Maximizes value of Japanese market without precluding a global partnership
  - Enables Forty Seven to focus on executing path to U.S. registration, while advancing development of 5F9 in Japan
  - Provides non-dilutive capital

**at current exchange rate*

Highly Experienced Management and Advisors

Forty Seven

Management Team:

Mark McCamish, M.D., Ph.D. *President & Chief Executive Officer*	SANDOZ a Novartis company · PDL BioPharma · AMGEN · Abbott
Chris Takimoto M.D., Ph.D. *Chief Medical Officer*	janssen Pharmaceutical Companies of Johnson & Johnson · START Center for Cancer Care · NIH National Cancer Institute
Ann Rhoads, M.B.A. *Chief Financial Officer*	Zogenix · PREMIER
Craig Gibbs, Ph.D., M.B.A. *Chief Business Officer*	TOBIRA Therapeutics · GILEAD · Genentech
Norm Kruse, J.D., Ph.D. *Chief Patent Counsel*	verinata Health · maxygen · CHIRON · KILPATRICK TOWNSEND
Kyle Elrod *SVP of Corporate Planning & Operations*	virobay · life technologies · CELERA · AXYS
Mark Chao, M.D., Ph.D. *VP of Clinical Development*	STANFORD School of Medicine
Jens-Peter Volkmer, M.D. *VP of Research & Early Development*	STANFORD School of Medicine · Heinrich Heine Universität Düsseldorf
Mukul Agarwal, M.S., M.B.A. *VP of Corporate Development*	revance · ANACOR Pharmaceuticals · Allergan · MedImmune · gsk GlaxoSmithKline
Aimee Murphy *VP of Clinical Operations*	ADURO BIOTECH · CERUS
Qinghai Zhao, Ph.D. *VP of Technical Development & Manufacturing*	AnaptysBio · NGMBio · TEVA Pharmaceutical Industries Ltd. · HUMAN GENOME SCIENCES

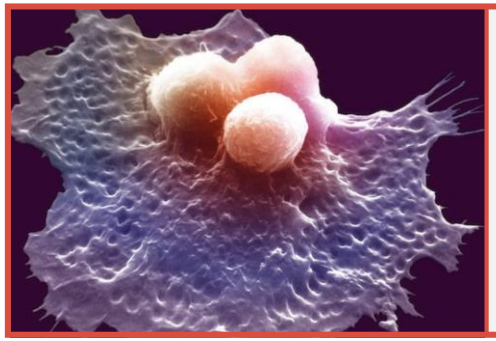
Scientific Advisory Board

 **James Allison, Ph.D.**	Chair, Department of Immunology, Director, Parker Institute for Cancer Research, and Executive Director, Immunotherapy Platform at the University of Texas MD Anderson Cancer Center; Winner, 2018 Nobel Prize in Physiology or Medicine
 **Ronald Levy, M.D.**	Professor of Medicine at Stanford University School of Medicine
 **Padmanee Sharma, M.D., Ph.D.**	Professor, Department of Genitourinary Medical Oncology and Department of Immunology, Division of Cancer Medicine at the University of Texas MD Anderson Cancer Center, Scientific Director, Immunotherapy Platform and Co-Director of the Parker Institute for Cancer Immunotherapy at MD Anderson Cancer Center
 **Louis Weiner, M.D.**	Director, Georgetown Lombardi Comprehensive Cancer Center and Professor and Chair, Department of Oncology, at Georgetown University Medical Center

Board of Directors:

Mark McCamish, M.D., Ph.D.	Forty Seven, Inc.	Dennis Henner, Ph.D.	Blackstone Life Sciences (formerly Clarus)
Kristine Ball, C.P.A.	Menlo Therapeutics	Ravi Majeti, M.D., Ph.D.	Stanford School of Medicine
Jeff Bird, M.D., Ph.D.	Sutter Hill Ventures	Irving Weissman, M.D.	Stanford School of Medicine
Ian Clark	Former Genentech CEO		

Targeting Macrophages Leverages the Innate Immune System in the Fight Against Cancer



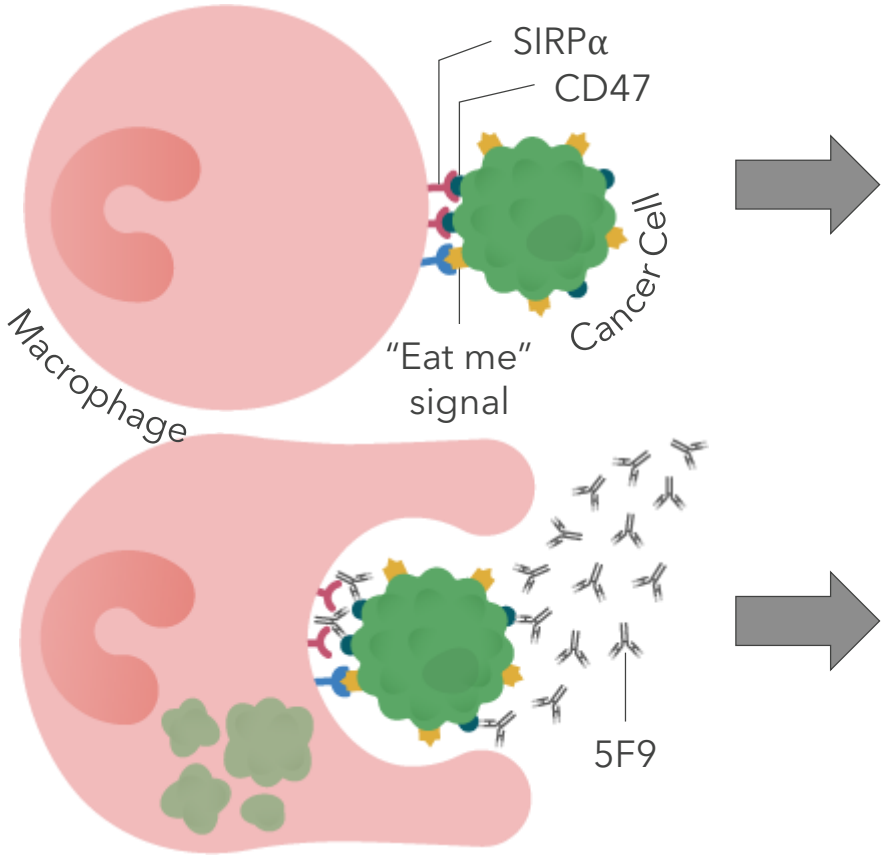
Macrophages are the primary first responders:

- Innate immune cell-type abundant in most tumors
- Phagocytose cells displaying abnormal "eat me" signals, including cancer cells, virally infected cells, and dead or dying cells
- Recruit, activate, and present cancer cell antigens to T cells

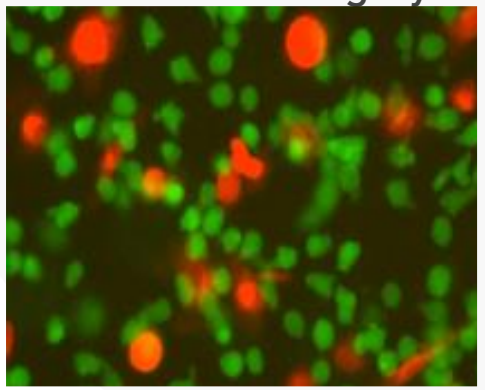
	T cells	Macrophages
Immune System Targeted	Adaptive immune system	Innate immune system
Percentage of Tumor Infiltrating Immune Cells	10-20%[1]	20-40%[1]
Cell-Surface Checkpoints and their Receptors	PD-1/PD-L1, CTLA-4	CD47/SIRPα
Applicability to Tumor Targets	Target limited	Not target limited
Dependency	Requires antigen presentation by innate immune cells	Works independently and can recruit adaptive immune cells

[1] *Gentles and Alizadeh, Nature Medicine 2015.*

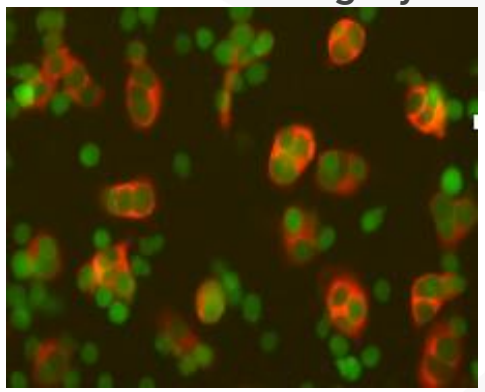
5F9 is a Novel Macrophage Immune Checkpoint Inhibitor Targeting CD47



Control mAb: No Phagocytosis



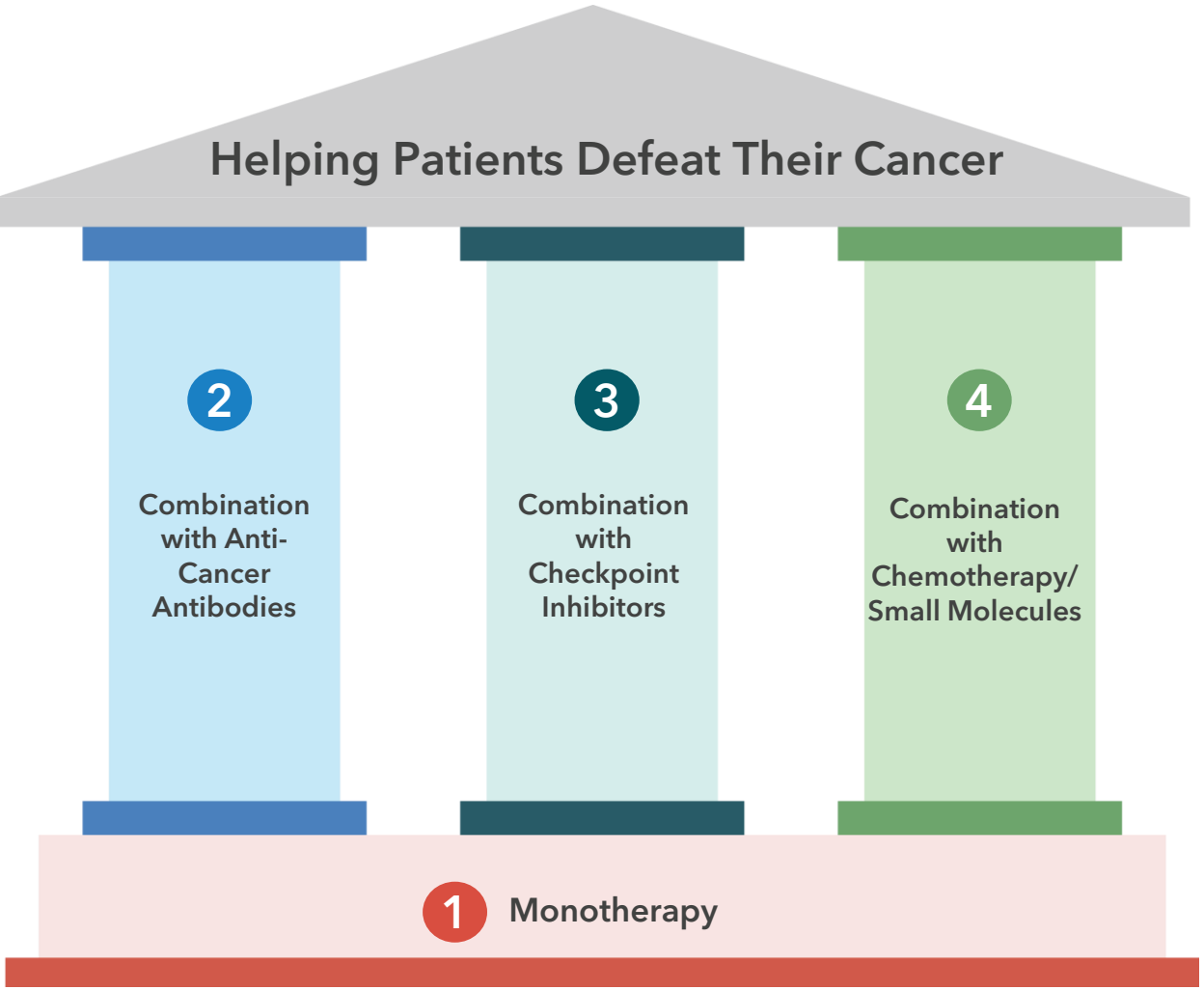
Anti-CD47 mAb: Phagocytosis



Macrophages
Cancer cells

- 5F9 enables macrophages to phagocytose cancer cells by blocking the binding of the "don't eat me" signal CD47 to its receptor SIRPα
- Normal cells are not phagocytosed as they do not express "eat me" signals, except for aged red blood cells
- Additional external "eat me" signals can be provided by cancer-specific antibodies

5F9 Has Applications in Four Treatment Modalities



1 **Monotherapy:**
Proof-of-concept, facilitates phagocytosis and elimination of tumor cells. Provides foundation for combination therapy

2 **In Combination with Anti-Cancer Antibodies:**
Synergizes with tumor targeting antibodies in a process called antibody dependent cellular phagocytosis (ADCP)

3 **In Combination with Checkpoint Inhibitors:**
Enhances T cell activation by cross-presentation of cancer cell antigens and amplifies the efficacy of checkpoint inhibitors

4 **In Combination with Chemotherapy / Small Molecules**
Induction of pro-phagocytic signals on tumor cells by chemotherapy facilitates synergistic phagocytosis

Advancing Pipeline Creating Multiple Opportunities

Drug Candidate/Focus		Discovery	Preclinical	Phase 1	Phase 2	Registrational Trial	Clinical Collaborators	Worldwide Rights: Rest of World	Worldwide Rights: Japan, Taiwan, South Korea and other ASEAN countries
5F9 Anti-CD47 Antibody	NHL: DLBCL/FL	NHL: 5F9 + Rituximab					Leukemia & Lymphoma Society®	FortySeven	ONO Pharmaceutical
		DLBCL: 5F9 + Rituximab + Atezolizumab					Roche Genentech		
		DLBCL: 5F9 + Rituximab + Acalabrutinib					AstraZeneca / Acerta Pharma		
		DLBCL: 5F9 + Rituximab + Gem/Ox*					—		
	MDS/AML	MDS: 5F9 + Azacitidine					CIRM		
		AML: 5F9 + Azacitidine					CIRM		
		AML: 5F9 + Atezolizumab					Roche Genentech		
	Solid Tumors: Colorectal/ Ovarian/ Bladder	CRC: 5F9 + Cetuximab					CIRM / Lilly		
		Ovarian: 5F9 + Avelumab					Merck		
		Bladder: 5F9 + Atezolizumab					Roche Genentech		
FSI-189 Anti-SIRPα Antibody		Oncology / Non-Oncology					—	FortySeven	
FSI-174 Anti-cKIT Antibody		HSC Transplantation					—	FortySeven	

*Expansion arm of ongoing NHL: 5F9 + Rituximab trial

5F9 in DLBCL

The NEW ENGLAND JOURNAL of MEDICINE

Original Article

CD47 Blockade by Hu5F9-G4 and Rituximab in Non-Hodgkin's Lymphoma

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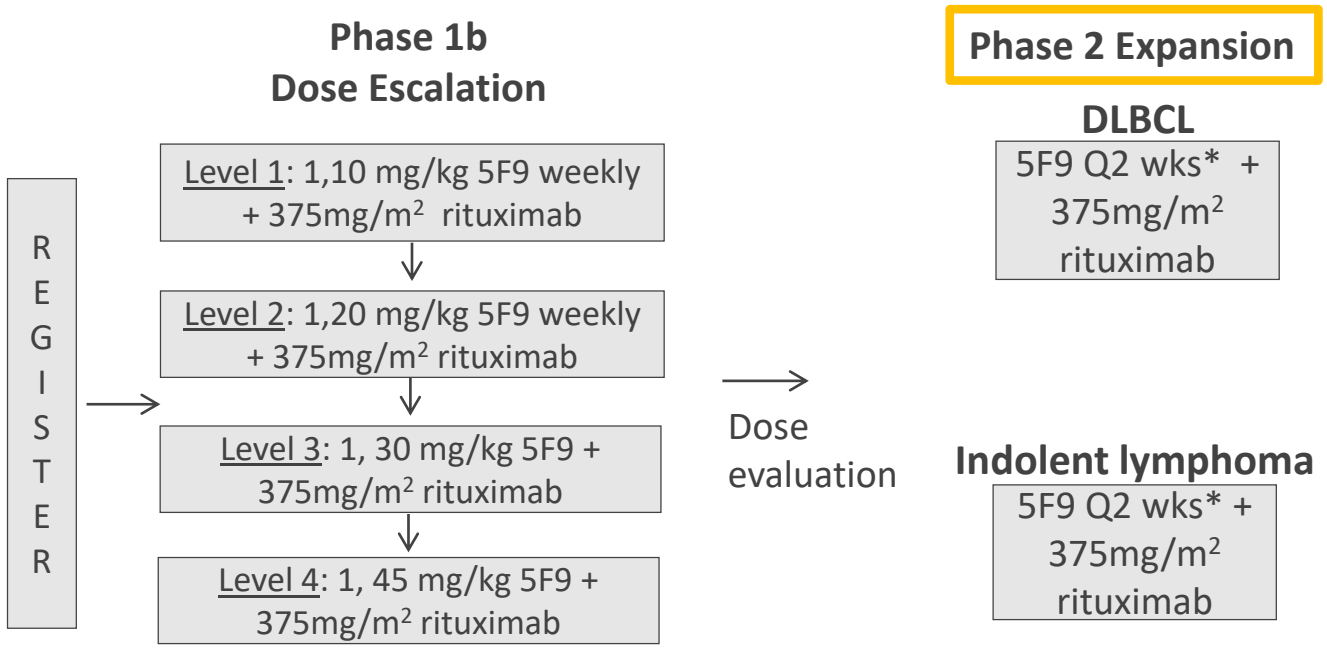
From Stanford University, Stanford (R.A., T.T., R.M., I.L.W.), City of Hope, Duarte (L.P.), and Forty Seven, Menlo Park (J.L., J.Y.C., J.-P.V., B.A., J.H., R.M., I.L.W., C.H.T., M.P.C.) — all in California; Sarah Cannon Research Institute–Tennessee Oncology, Nashville (I.F.); University of Alabama at Birmingham, Birmingham (A.F.); Washington University in St. Louis, St. Louis (N.L.B.); Levine Cancer Institute–Atrium Health, Charlotte, NC (N.G.); University of Chicago, Chicago (J.K., S.M.S.); National Cancer Institute, Rockville, MD (M.R.); Dana–Farber Cancer Institute, Boston (A.L.); and University of Oxford, Oxford, United Kingdom (G.P.C.).

Phase 1b/2 Study Design: 5F9 in Combination with Rituximab in r/r B-cell NHL



Phase 1b Eligibility Criteria

B-cell NHL relapsed or refractory to at least 2 prior lines of therapy

*5F9 weekly dosing through Cycle 1 or 2, followed by Q2 week maintenance dosing

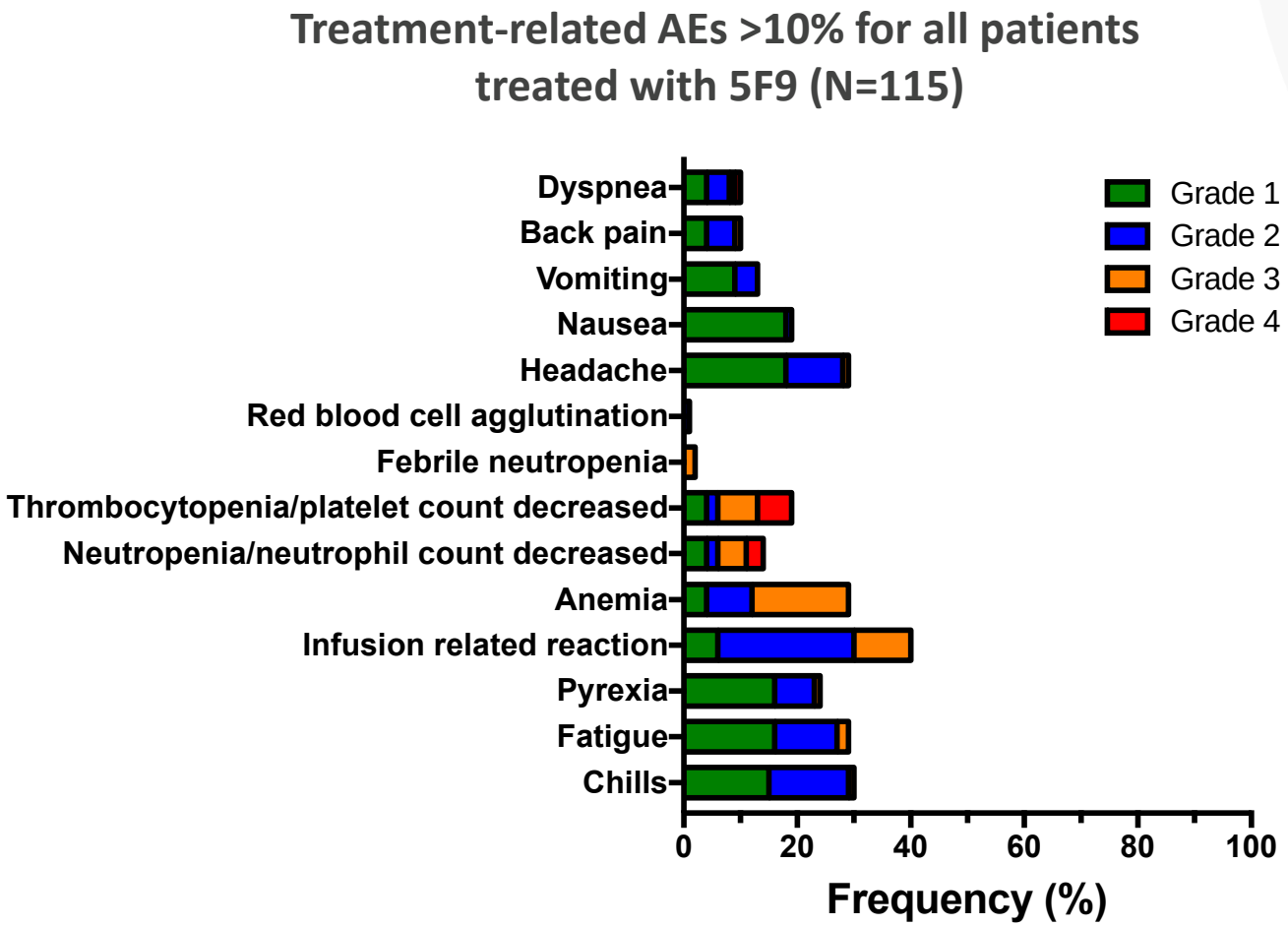
Phase 2 Eligibility Criteria

DLBCL cohort: primary refractory or relapsed/refractory (r/r) ≥ 2 prior lines of therapy. Patients required to be rituximab-refractory and ineligible for CAR-T cell therapy

Indolent lymphoma cohort: FL or MZL r/r to ≥2 prior lines of therapy

- Phase 1b: Median age of 61 years
- Phase 2: Median age of 72 years with 89% CAR-T cell therapy ineligible

5F9 + Rituximab is Well Tolerated at Doses up to 45 mg/kg

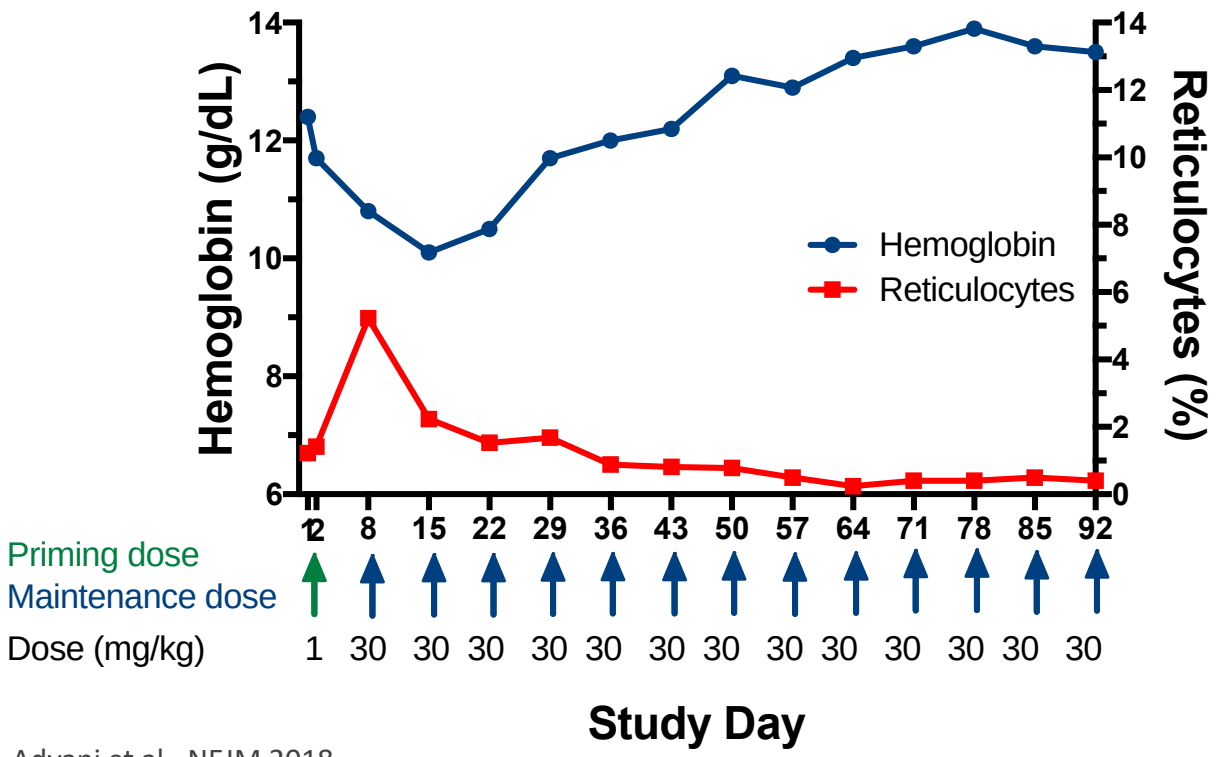


TRAEs > 10% and AEs of interest are shown

- No MTD reached with up to 45 mg/kg of 5F9 dosing
- Most adverse events were Grade 1 or 2
- No significant dose-related toxicities seen with 30 compared to 45 mg/kg
- Most common AEs were the expected on-target anemia, infusion reactions and related symptoms (fever, chills, headache)
- No autoimmune AEs were seen
- Treatment discontinuation due to AE occurred in only 8 of 115 (7%) of patients

Proprietary Prime and Maintenance Dosing Regimen Mitigates Anemia and Differentiates From Competition

Hemoglobin Changes in a Typical Patient (DLBCL)



Advani et al., NEJM 2018

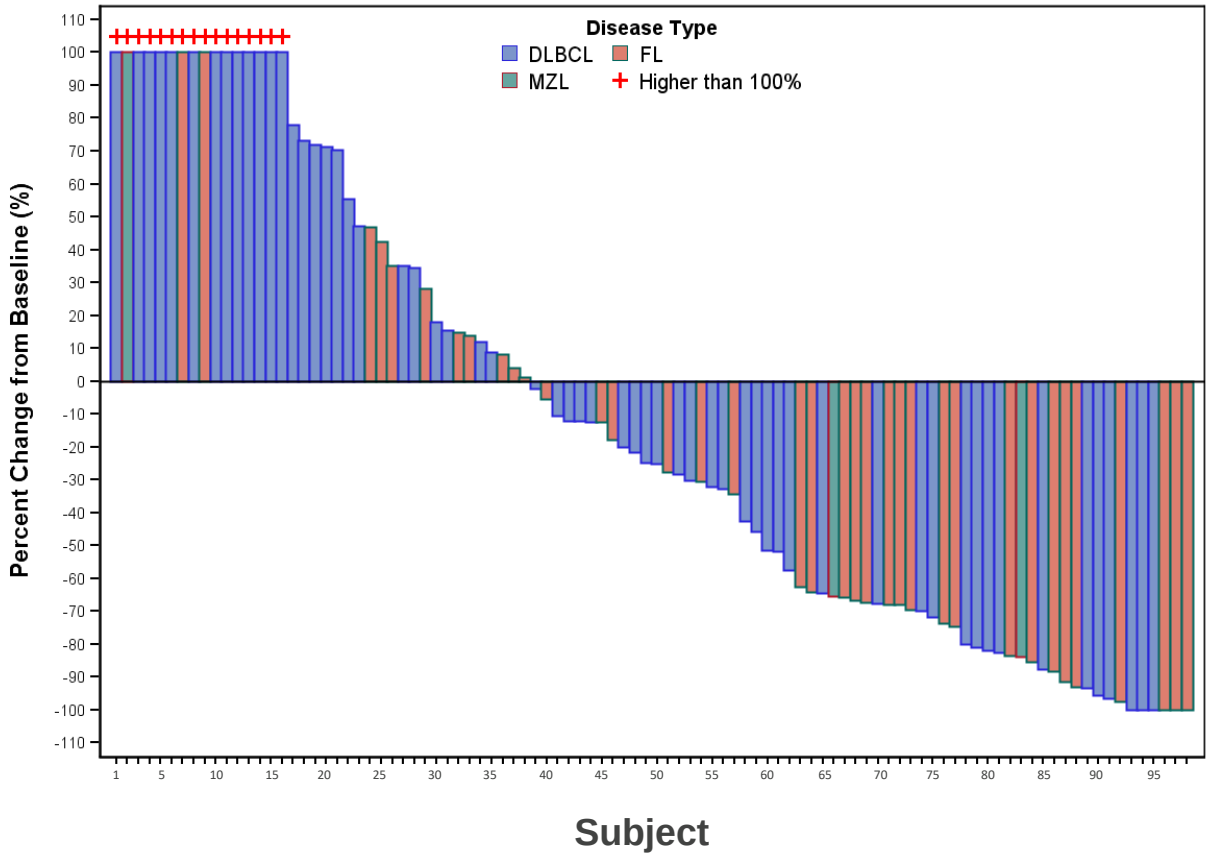
Key Points:

- Priming dose results in an early, temporary decline in hemoglobin levels corresponding to mild to moderate anemia
- Hemoglobin levels return to baseline in many patients even with continued treatment with 5F9 at significantly higher doses (up to 45mg/kg)
- Mild to moderate anemia during the first two weeks of starting therapy
- Associated with a temporary and a reversible reticulocytosis that resolves during the dosing period
- Dosing regimen patent family exclusively licensed to Forty Seven
  - Patents granted in U.S, Europe and Japan
  - Expiration date 2034 excluding patent term extensions

Response Rates in Phase 1b/2 Patients with DLBCL and FL

Best overall response	Total N=97	DLBCL N=59	Indolent lymphoma (FL N=35, MZL N=3)
ORR	44 (45%)	21 (36%)	23 (61%)
CR	18 (19%)	9 (15%)	9 (24%)
PR	26 (27%)	12 (20%)	14 (37%)
SD	16 (17%)	7 (12%)	9 (24%)
PD	37 (38%)	31 (53%)	6 (16%)

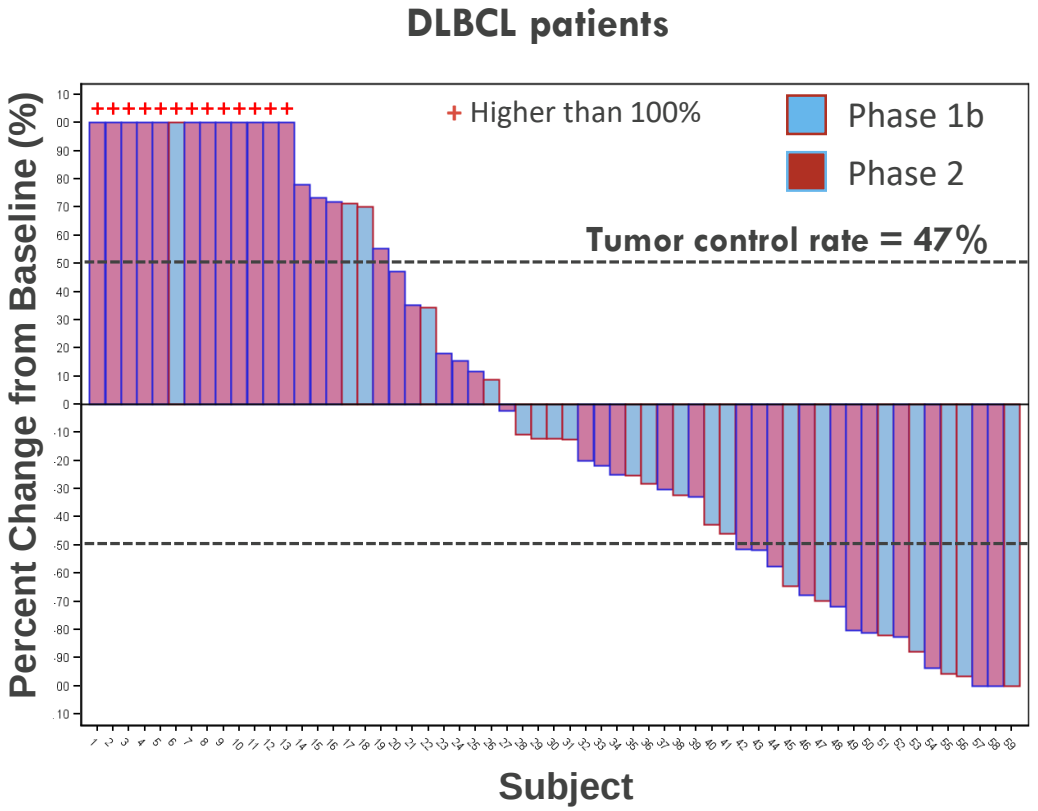
Patient evaluable for efficacy are shown
Efficacy per Lugano criteria (Cheson et al. 2014)



- The ORR across all patients is 45% (36% for DLBCL, 61% for indolent lymphoma) per Lugano criteria
- Median time to response is rapid at 1.8 months (range: 1.6 – 7.3 months)

Phase 2 Enrolled CAR-T Ineligible and Heavily Pre-Treated Patients

Best Overall Response	Phase 1b N = 21 (%)	Phase 2 N = 38 (%)	≥ 3 Prior Lines of Therapy N = 39 (%)
Study Patient Population	Primary refractory disease or r/r to ≥ 2 prior lines of therapy	Primary refractory disease or r/r to ≥ 2 prior lines of therapy and ineligible for CAR-T therapy	Subgroup analysis of combined Phase 1b and Phase 2 Data
ORR	10 (48)	11 (29)	15 (38)
CR	7 (33)	2 (5)	7 (18)
PR	3 (14)	9 (24)	8 (20)
SD	4 (19)	3 (8)	4 (10)



- The Phase 1b expanded patient population has significant efficacy with 5F9 + rituximab (ORR 48%)
- The Phase 2 population changed to mostly (89%) r/r CAR-T ineligible patients with lower response rates
- 5F9+rituximab induces clinical activity (ORR 38%) in DLBCL patients with ≥ 3 prior lines of therapy
- FDA discussion highlighted heavily pre-treated, ≥ 2 prior lines of therapy including CAR-T ineligible

5F9 Efficacy Consistent Across Subtype and Prior Lines of Therapy

	DLBCL (N=59)					
Population	All DLBCL N=59 (%)	ABC N=14 (%)	GCB N=30 (%)	Cell of origin unknown N=15 (%)	De novo N=38 (%)	Transformed DLBCL N=21 (%)
Objective Response Rate (ORR)	21 (36%)	5 (36%)	9 (30%)	6 (46%)	13 (34%)	8 (38%)

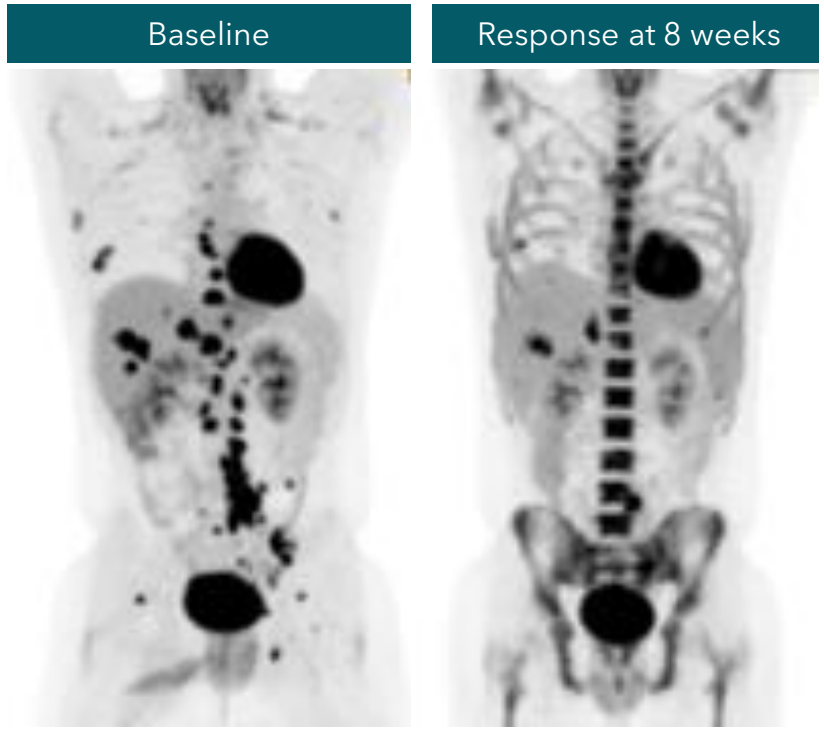
	DLBCL (N=59)			
Population	All DLBCL N=59 (%)	Primary refractory N=35 (%)	≥ 2 prior lines of therapy N=57 (%)	≥ 3 prior lines of therapy N=39 (%)
Objective Response Rate (ORR)	21 (36%)	12 (34%)	20 (35%)	15 (38%)

Patient evaluable for efficacy are shown ABC: activated B cell-like COO: cell of origin GCB: germinal center B cell-like

- Similar responses observed across multiple DLBCL subtypes and primary refractory patients, and irrespective of prior lines of therapy

Clinical Evidence of 5F9 + Rituximab Efficacy in Patients with Refractory Disease

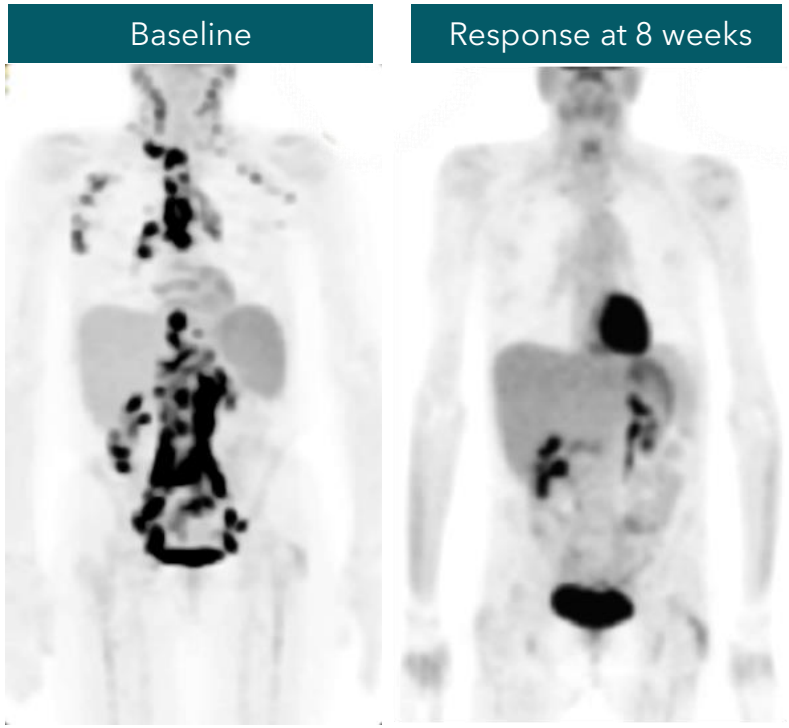
DLBCL Patient (PR)



PET scan

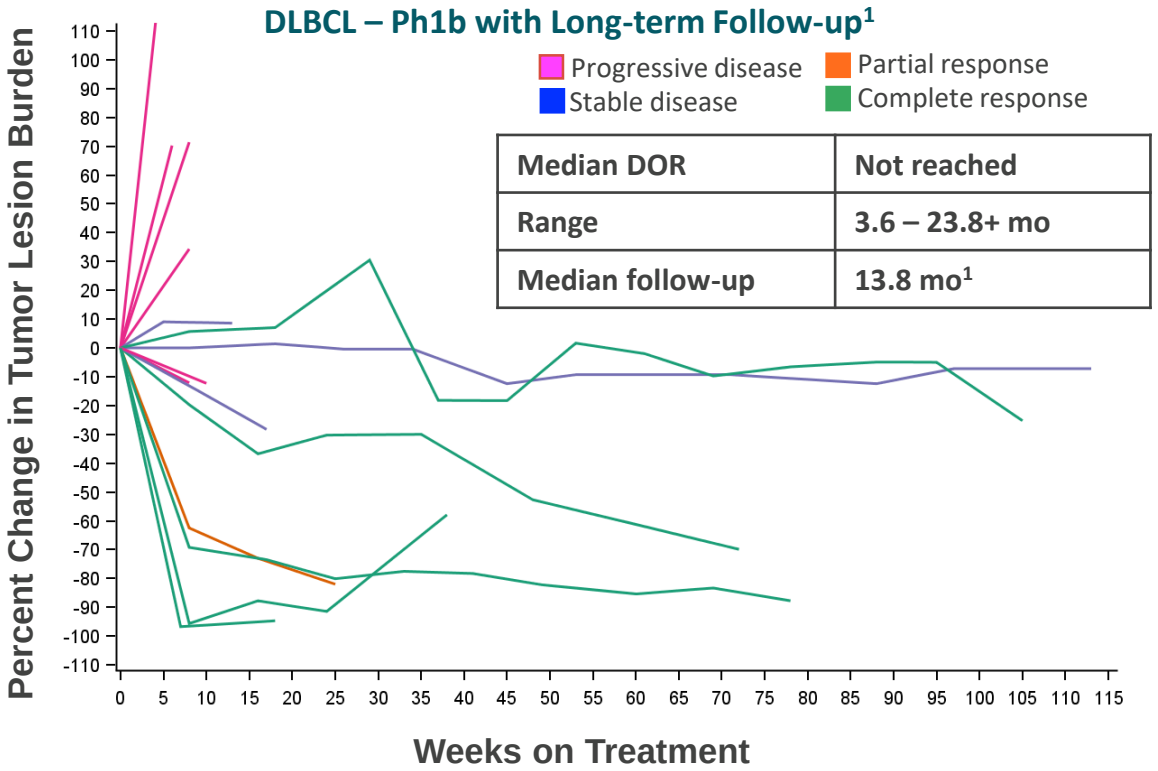
- 21M with primary refractory DLBCL
- 4 prior lines with no response to any prior therapy
- Partial response at 8 weeks

FL Patient (CR)

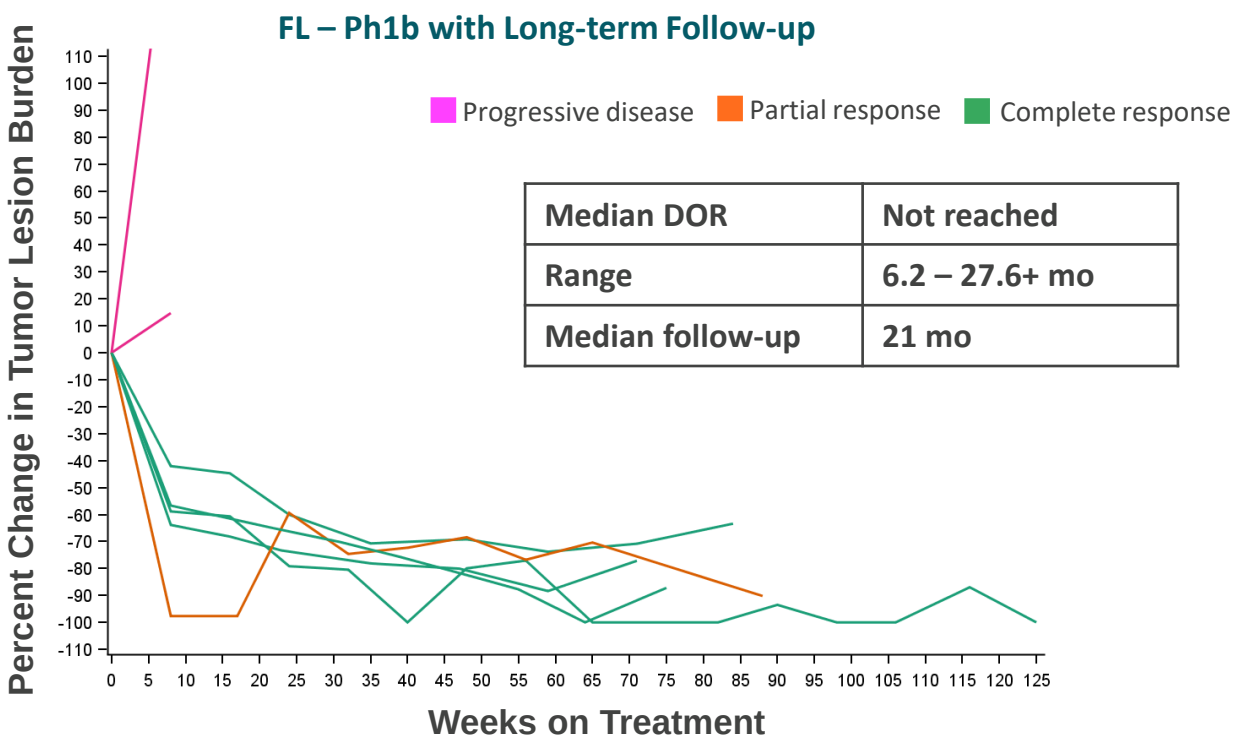


- 66F with FL
- Ten prior therapies, bulky disease
- Complete response at 8 weeks

Durable Responses Observed in Phase 1b Patients Treated with 5F9 + Rituximab



[1]*These plots show data from 15 Phase 1b patients as of May 2019, includes patients treated at 5F9 ≤ 30 mg/kg 6 patients treated at 45 mg/kg in Ph1b not shown given early follow-up.*



These plots show data from 7 Phase 1b patients as of May 2019 from Advani et al., NEJM 2018

- Phase 1b: median DOR not reached: DLBCL (median follow up of over 13.8 mo), FL (median follow up 21 mo)
  - DLBCL: 2 patients converted from PR to CR, 1 SD ongoing 24+ mo
  - FL: 1 patient converted from PR to CR, 1 PR ongoing 20+ mo
- Phase 2: median follow up is 3.7 mo

High Unmet Medical Need for r/r DLBCL

Epidemiology:

- US annual incidence of DLBCL is 28,000[1] with ~40,000 to 50,000[2] patients on drug therapy in 2018
- ~10 to 20% of treated DLBCL patients are on later lines of therapy (3rd line +)[2,3]
- Median Overall Survival = 6.3 months[4]

Current Treatment Options:

- Patients with r/r DLBCL with ≥ 2 prior lines of therapy have limited treatment options
  - ~50 to 80%[3] of patients are estimated to be CAR-T ineligible due to medical ineligibility, progressive/proliferative disease, and/or inability to gain access to the therapy
  - Substantial drop off in efficacy in patients with >2 prior lines of therapy

1. Surveillance, Epidemiology, and End Results (SEER)
2. Decision Resources, and CancerMPact® Patient Metrics (Kantar Health). Available from www.cancermpact.com. Accessed 13 June 2019.
3. Company estimates
4. Crump et al. Blood 2017 (SCHOLAR-1)

Treating Elderly, Heavily Pretreated DLBCL Patients is Challenging

Challenges in Later Lines of Therapy

- Late-stage development products in r/r DLBCL show a decline in response rates in later lines of therapy
- Declining trend in response rates in patients > 65 years old in the SCHOLAR-1 analysis
- CAR-T ineligible patients are a newly defined, emerging, older population with more co-morbidities and more aggressive disease

Number of r/r DLBCL study patients with only 1 prior line of therapy

- MOR208 L-Mind = 40/81 (49% with 1 prior line of therapy)
- Polatuzumab + BR Ph 2 = 23/80 (29% with 1 prior line of therapy)
- 5F9 + Rituximab (Ph 1b/2) = 2/59 (3% with 1 prior line of therapy)

Study[1,2]	ORR				
	Overall Study	1 prior line	≥2 prior lines	<65 years	≥65 years
MOR208+Revlimid (L-MIND)	60%	70%	50%		
Polatuzumab + BR (Phase 2)	63%	73%	35%		
SCHOLAR-1	26%			27%	19%

1. Crump et al. Blood 2017 (SCHOLAR-1)
2. L-MIND results per MorphoSys ICML 2019, Polatuzumab Phase 2 results per ASCO 2018 and Package Insert

Registration Strategy for 5F9 + Rituximab in DLBCL

Single arm registration path discussed in an FDA Type C Meeting in May 2019

- FDA feedback indicates support for a single arm registrational trial of 5F9 + rituximab in heavily pretreated DLBCL patients (≥ 2 prior lines of therapy including CAR-T ineligible) based on ORR (CR+PR) with duration of response
- Anticipated sample size of 100 patients with 6 months efficacy follow-up

Registration plan

- Refine patient eligibility criteria based on clinical and translational data from Phase 1B and Phase 2 trials
- Amend DLBCL protocol with new eligibility criteria and enroll an additional 100 patients for BLA filing

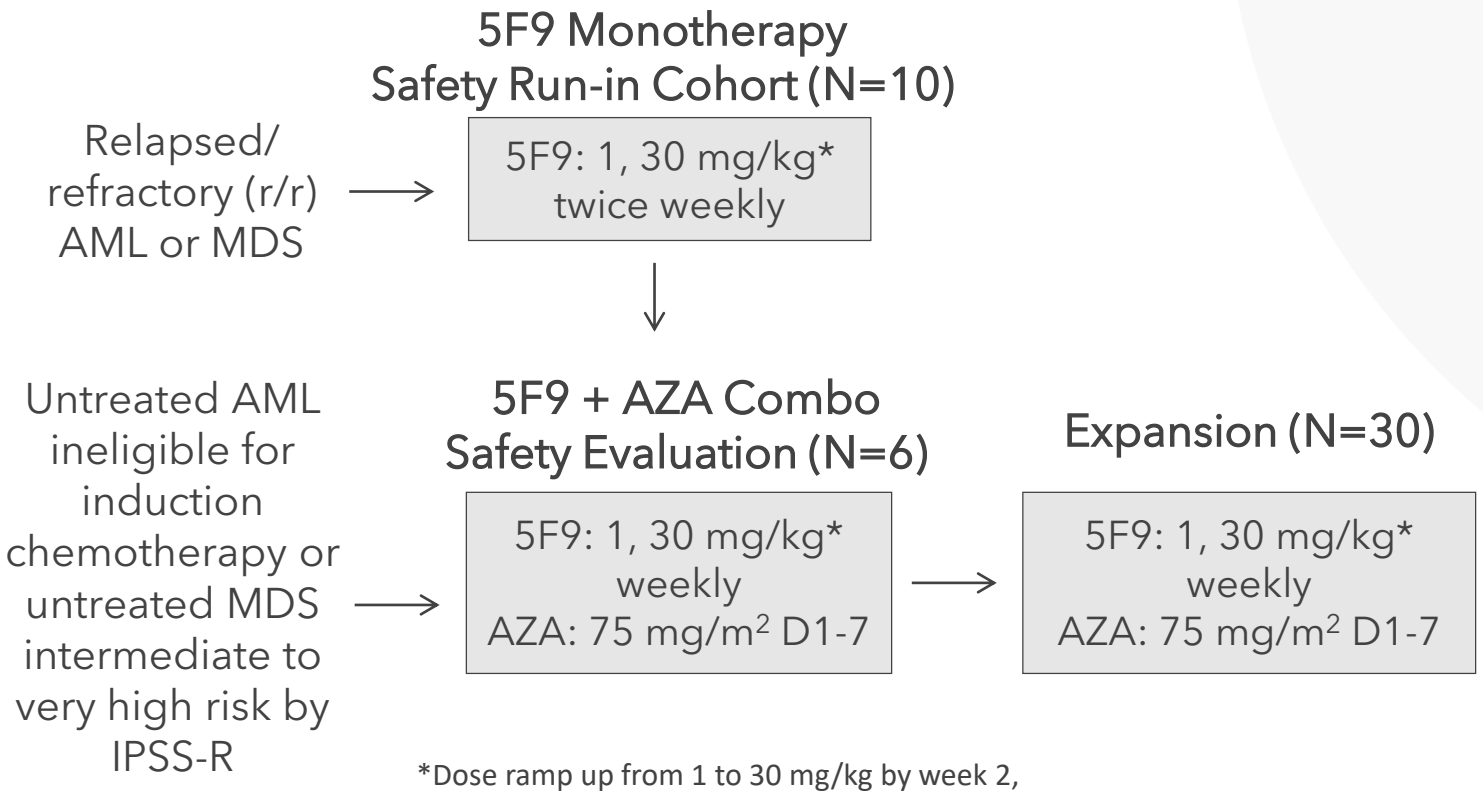
Start registrational trial with refined patient eligibility criteria Q1-2020 (100 patients every 2 week dosing)

Interim efficacy read out by Q4 2020

We remain encouraged about the responses in indolent lymphoma (ORR = 61%) and believe this represents an additional opportunity for 5F9

5F9 in MDS/AML

Study Design: 5F9 Alone or in Combination with Azacitidine in AML and MDS



*Dose ramp up from 1 to 30 mg/kg by week 2, then 30 mg/kg maintenance dosing

Primary objectives

1) Safety of 5F9 alone or with AZA
2) Efficacy of 5F9 in r/r AML/MDS and 5F9+AZA in untreated AML/MDS

Secondary objectives

1) PK, PD and immunogenicity of 5F9
2) Additional measures of efficacy (DOR, PFS, OS)

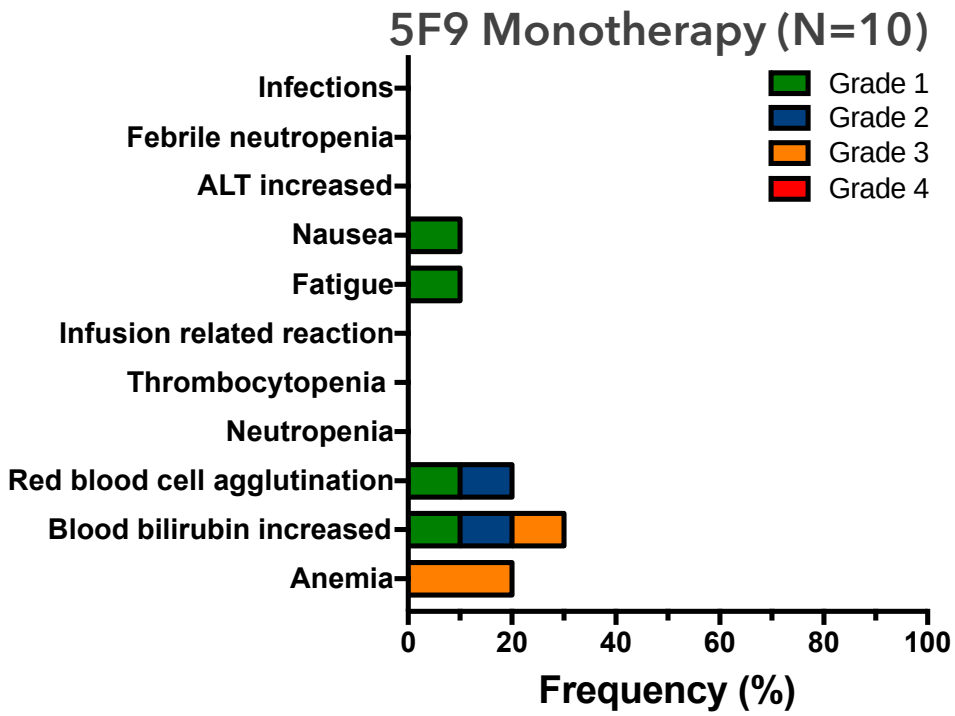
Exploratory objectives

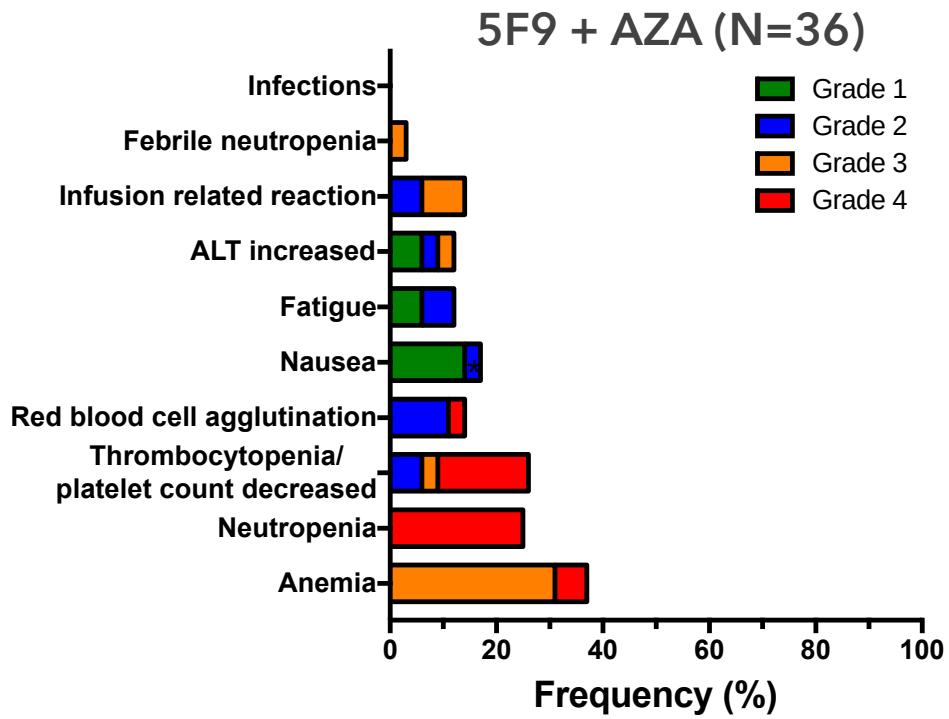
1) To assess CD47 receptor occupancy, markers of immune cell activity, and molecular profiling in AML/MDS

- A 5F9 priming dose (1 mg/kg) and dose ramp up was utilized to mitigate on target anemia
- 5F9 monotherapy tolerability was confirmed in r/r AML/MDS patients prior to 5F9+AZA combination

5F9 Alone or in Combination with Azacitidine is Well Tolerated

Treatment-related AEs to 5F9 and/or AZA





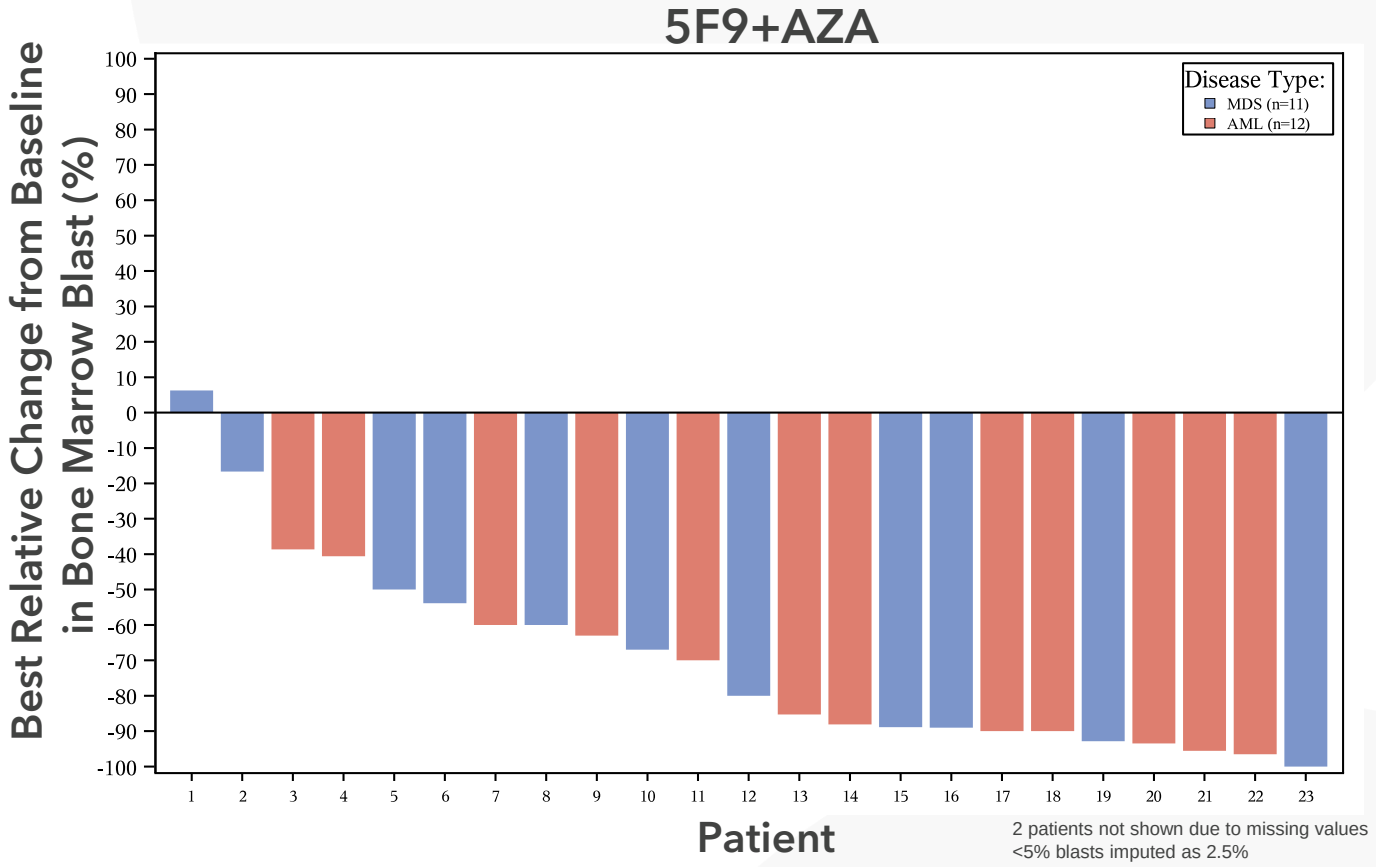
TRAEs > 10% (mono), ≥ 10% (combo), AEs of interest are shown; All patients dosed with 5F9 are shown

- No MTD reached with 5F9 alone or in combo; 5F9+AZA profile consistent with AZA monotherapy
- Treatment discontinuation due to AE occurred in only 1/46 (2%) of patients
- No significant cytopenias, infections, or autoimmune AEs occurred (most patients cytopenic at baseline)

Anti-Leukemic Activity is Observed with 5F9 Monotherapy and in Combination with AZA in AML and MDS

Best Overall Response	R/R AML/MDS 5F9 mono N=10	1L AML 5F9+AZA N=14	1L MDS 5F9+AZA N=11
ORR	1 (10%)	9 (64%)	11 (100%)
CR	0	5 (36%)	6 (55%)
CRi	0	2 (14%)	-
PR	0	0	0
MLFS/ marrow CR	1 (10%)	2 (14%)	4 (36%) 2 with marrow CR+HI
Hematologic improvement (HI)	-	-	1 (9%)
SD	7 (70%)	5 (36%)	0
PD	2 (20%)	0	0

Response assessments per 2017 AML ELN criteria and 2006 IWG MDS criteria; Patients with at least one post-treatment response assessment are shown
"-" not applicable



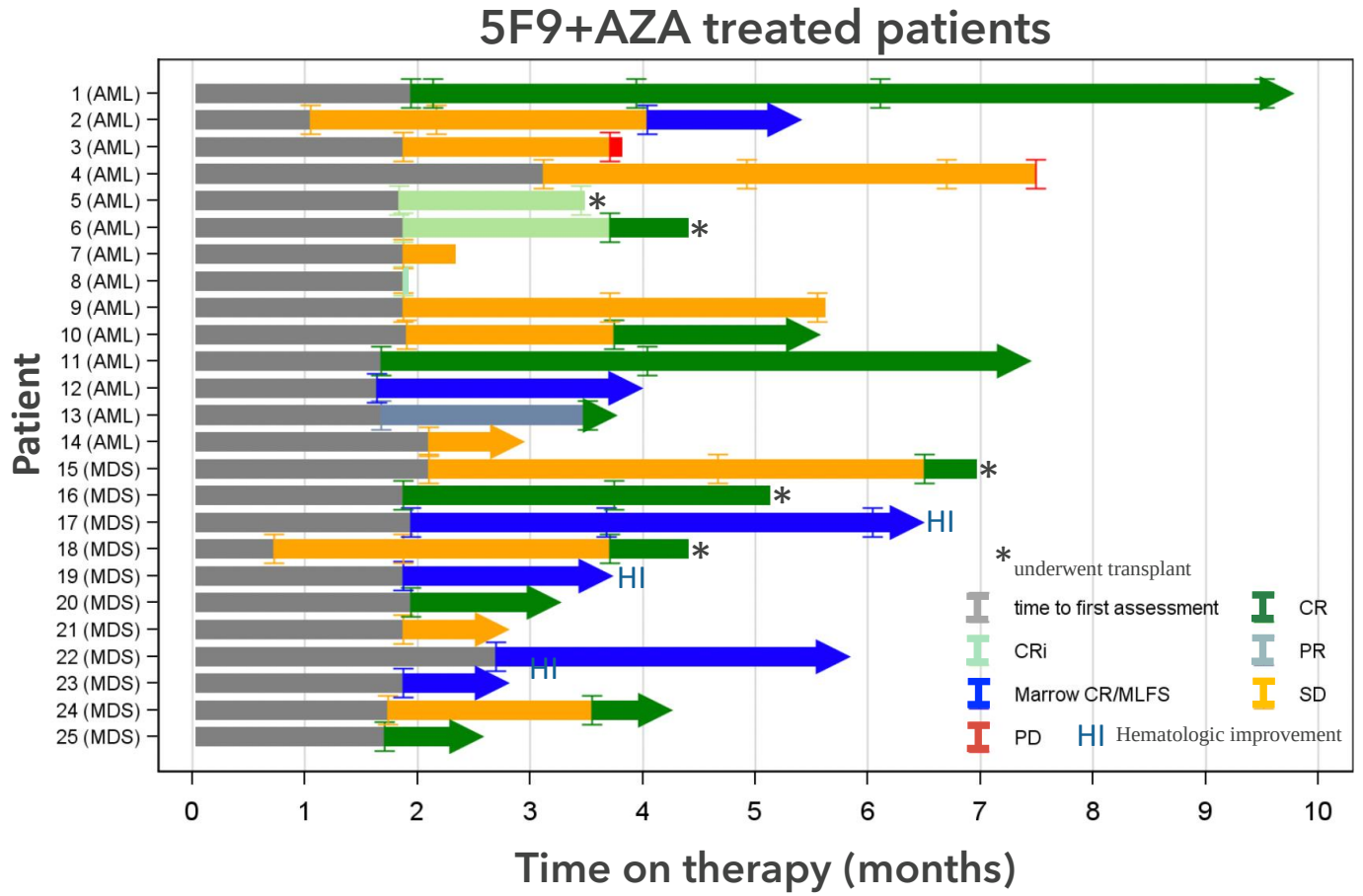
2 patients not shown due to missing values
<5% blasts imputed as 2.5%

- 5F9 monotherapy has an ORR of 10% in r/r AML/MDS
- 5F9+AZA has an ORR of 100% in MDS, 64% in AML which compares favorably to AZA monotherapy ORR
  Median time to response is more rapid (1.9 months) than AZA alone

Deep Responses Seen in Patients Treated with 5F9 + Azacitidine

Parameter	1L AML N=14	1L MDS N=11
RBC transfusion independence	9/14 (64%)	-
Complete cytogenetic response in responders*	2/7 (29%)	3/7 (43%)
MRD negativity in responders	3/9 (33%)	2/10 (20%)
Median duration of response (months)	NR (0.03+ – 8.3+)	NR (0.5+ – 4.3+)
Median follow-up [range] (months)	3.8 (1.9 – 10.3)	3.7 (2.5 – 6.8)

Minimal residual disease (MRD) was evaluated by multiparameter flow cytometry
Hematologic improvement (HI-E, HI-P, HI-N) defined per 2006 IWG MDS criteria
Cytogenetic response defined per 2003 and 2006 IWG criteria; NE: not reached
*Cytogenetic responses shown for all responding patients with abnormal cytogenetics at baseline
"-" not applicable
Data cut May 10, 2019



- No responding patient has relapsed or progressed on 5F9 + AZA
- Multiple patients have improved responses over time
- MRD negativity has been observed (time to MRD negativity ranged from 1.7 to 6.1 months)
- 5/20 (25%) of responding patients have successfully received an allogeneic stem cell transplant
- The longest patient in response is in CR 9+ months on therapy and ongoing

Myelodysplastic Syndrome (MDS) Represents a High Unmet Need Disease

Epidemiology:

- The U.S. annual incidence of MDS is 14,600[1] with estimated prevalence ranging between 60,000 – 170,000[2]
- ~16,000 – 28,000[3] patients are on drug therapy in 2018
- MDS is associated with significant morbidity with 25% of patients with highest risk progressing to AML within a year[4]

Current Treatment Options:

- Limited treatment options exist, most patients (~80%[5]) receive only supportive care including transfusions and growth factors
- Treatments are stratified by prognostic risk scoring (IPSS-R), with only 3 approved therapies currently: azacitidine, decitabine and lenalidomide
- Unmet need exists for a new disease-modifying treatment
- No new drugs approved since 2006

Opportunities for 5F9+azacitidine in MDS:

- Initial targeted population is 1st Line Intermediate to Very High Risk by IPSS-R
- Potential to expand into Relapsed/Refractory and Lower Risk populations
- Potential to increase treatment rates with more effective therapies that have disease-modifying activity

[1]Surveillance, Epidemiology, and End Results (SEER) program estimates in MDS for 2019
[2]Cogle et al. Curr Hematol Malig Rep 2015
[3]Kantar Health CancerMPact® Patient Metrics (available from www.cancermpact.com, accessed 1 June 2019), and Decision Resources.
[4]National Cancer Center Network (NCCN) MDS Guidelines Version 2. 2019
[5]Company estimate
IPSS-R: Revised International Prognostic Scoring System

Registration Strategy for 5F9 + Azacitidine in Higher Risk MDS

Single arm registration path discussed in an FDA Type B Meeting in May 2019

- FDA feedback indicates support for a single arm registrational trial of 5F9 + azacitidine in 1st line MDS (Intermediate to Very High Risk) based on CR+PR with durability of response
- Anticipated sample size of 91 patients with 6 months efficacy and 12 months safety follow-up
- FDA recommended a Special Protocol Assessment (SPA) to finalize key parameters

Registration plan

- Expand current trial, with weekly dosing, to 91 patients to accelerate acquisition of 12 month safety data
- Start second trial of 91 patients with 2 week dosing
  - Explores more convenient regimen
  - Align with FDA on trial elements with SPA

Both studies can potentially serve as registrational trials, thereby increasing probability for a successful BLA filing in MDS

AML provides an additional opportunity for 5F9 with its favorable safety profile

Expand and complete enrollment of existing MDS trial Q3 2020 (91 patients weekly dosing)

Initiate second MDS trial Q1-2020 with enrollment completion in Q1 2021 (91 patients every 2 week dosing)

File MDS BLA using combined efficacy and safety data Q4-2021

Catalyst Events Expected in 2019 – 2020

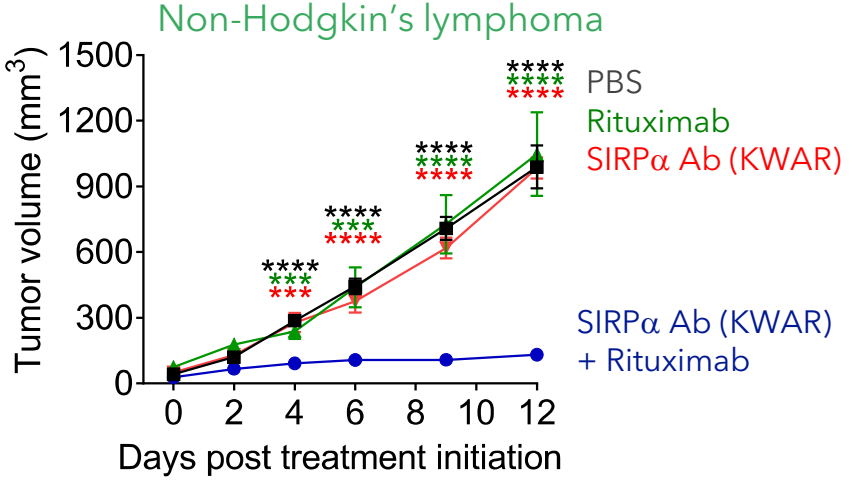
Indication	Therapy	Presented	Projected		
		1H 2019	2H 2019	1H 2020	2H 2020
NHL: DLBCL/FL	NHL: 5F9 + Rituximab	EHA/Lugano NHL: Phase 2 Efficacy (DLBCL & Indolent Lymphoma)			DLBCL 5F9 + R
	DLBCL: 5F9 + Rituximab + Atezolizumab				
	DLBCL: 5F9 + Rituximab + Acalabrutinib				DLBCL 5F9 + R + Acalabrutinib
	DLBCL: 5F9 + Rituximab + Gem/Ox				DLBCL R-Gem/Ox: Phase 1b Safety + Efficacy
MDS/AML	MDS: 5F9+ Azacitidine	ASCO & EHA MDS: Phase 1b Safety + Efficacy	MDS: Expanded Efficacy + Durability		MDS: Expanded Efficacy + Updated Durability
	AML: 5F9+ Azacitidine	ASCO & EHA AML: Phase 1b Safety + Efficacy	AML: Expanded Efficacy + Durability		AML: Expanded Efficacy + Updated Durability
	AML: 5F9+ Atezolizumab				AML: Phase 1b Safety + Efficacy
Solid Tumors: Colorectal/Ovarian/Bladder	CRC: 5F9+ Cetuximab		CRC: Phase 1b Safety + Phase 2 Efficacy		
	Ovarian: 5F9+ Avelumab		Ovarian: Phase 1b Safety + Efficacy		
	Bladder: 5F9+ Atezolizumab				Bladder: Initial Safety + Efficacy
Oncology / Non-Oncology	FSI-189 (Anti-SIRPα)				FSI-189: Phase 1
HSC Transplantation	FSI-174 (Anti-cKIT)		FSI-174: NHP		FSI-174: Phase 1

FSI-189:
Anti-SIRPα Antibody Program

FSI-189 Program - On Track for IND Filing in Q1 2020

Target	○ SIRPα, CD172a
MOA	○ Blockade of CD47/SIRPα pathway ○ Promoting phagocytosis
Indication	○ Oncology ○ Non-oncology: stem cell transplantation in conjunction with cKIT antibody, infectious disease, cardiovascular disease
Addressed Need	○ Smaller antigen sink, potential for lower dose ○ Potential for improved dosing convenience ○ Lower cost of goods ○ Lack of RBC binding, no anemia
Development Status	○ Preclinical POC established ○ Lead candidate selection completed (FSI-189) ○ CMC on track for IND Q1 2020 ○ Pharmacology/Toxicology on track for IND Q1 2020 ○ IND anticipated Q1 2020
IP	○ Composition of matter patent application filed ○ Proprietary format of SIRPa antibodies to prevent inhibition of phagocytosis (Scorpion effect) → patent application filed
Competition	○ Two anti-SIRPα mAb's (Celgene CC-95251, OSE / Boehringer Ing. OSE-172) entered Phase 1 Trials and several preclinical programs: ALX Oncology, Biocytogen, Arch Oncology, Aduro Biotech

Combination of SIRPα Antibody with Rituximab Enhances Phagocytic Potency and Prolongs Survival in Mouse Model



Ring et al., PNAS 2017

Key Points to FSI-189

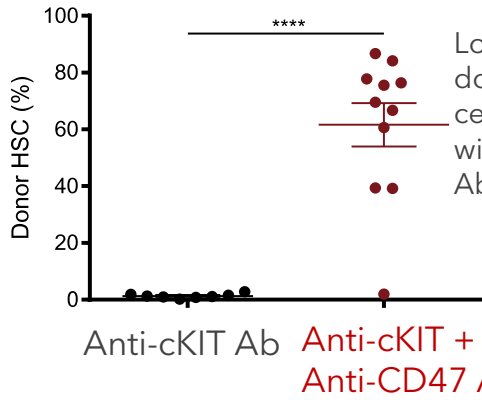
- Binds both major allelic variants
- Selectively binds SIRPα over SIRPγ
- Designed with inactivated "dead" Fc → Fc binding on macrophages can inhibit macrophage function - patent application filed
- Does not deplete aged RBCs
- On track for IND Q1 2020 and FIH trial Q2 2020

FSI-174:
Anti-cKIT Antibody Program

FSI-174 Program - On Track for IND Filing in Q4 2019 and FIH Trial Q1 2020

Target	○ cKIT, CD117, stem cell growth factor receptor
MOA	○ Blockade of stem cell factor signaling ○ Depletion of cKIT expressing cells
Indication	○ Hematopoietic stem cell (HSC) transplantation • Genetic disorders of blood system • Autoimmune diseases • Organ transplantation ○ Oncology: cKIT expressing cancers, i.e. leukemia & MDS
Addressed Need	○ Improved conditioning regimens (chemo and radiation free) • Potential for lower incidence of morbidity and mortality • Expanded patient populations and indications
Development Status	○ Preclinical POC established for both indications ○ CMC on track for IND Q4 2019 ○ Pharmacology/Toxicology on track for IND Q4 2019 ○ Pre IND completed and on track for IND filing Q4 2019
IP	○ Methods patent for cKIT Ab and cKIT + CD47 Ab filed/issued ○ Antibody compositions for cKIT and CD47 Abs filed/issued
Competition	○ Stanford sponsored trial in SCID (immune deficient) patients with AMG191 (cKIT Ab with dead Fc) ○ cKIT ADC antibody in preclinical development by Magenta Therapeutics ○ CD45 ADC antibody in clinical development by Actinium

Combination of cKIT and CD47 Antibodies Enables Transplantation of Blood-Forming Stem Cells in Mouse Model



Long-term engraftment of donor blood-forming stem cells after pre- treatment with cKIT Ab vs cKIT-CD47 Ab combination

Chhabra et al., STM 2016

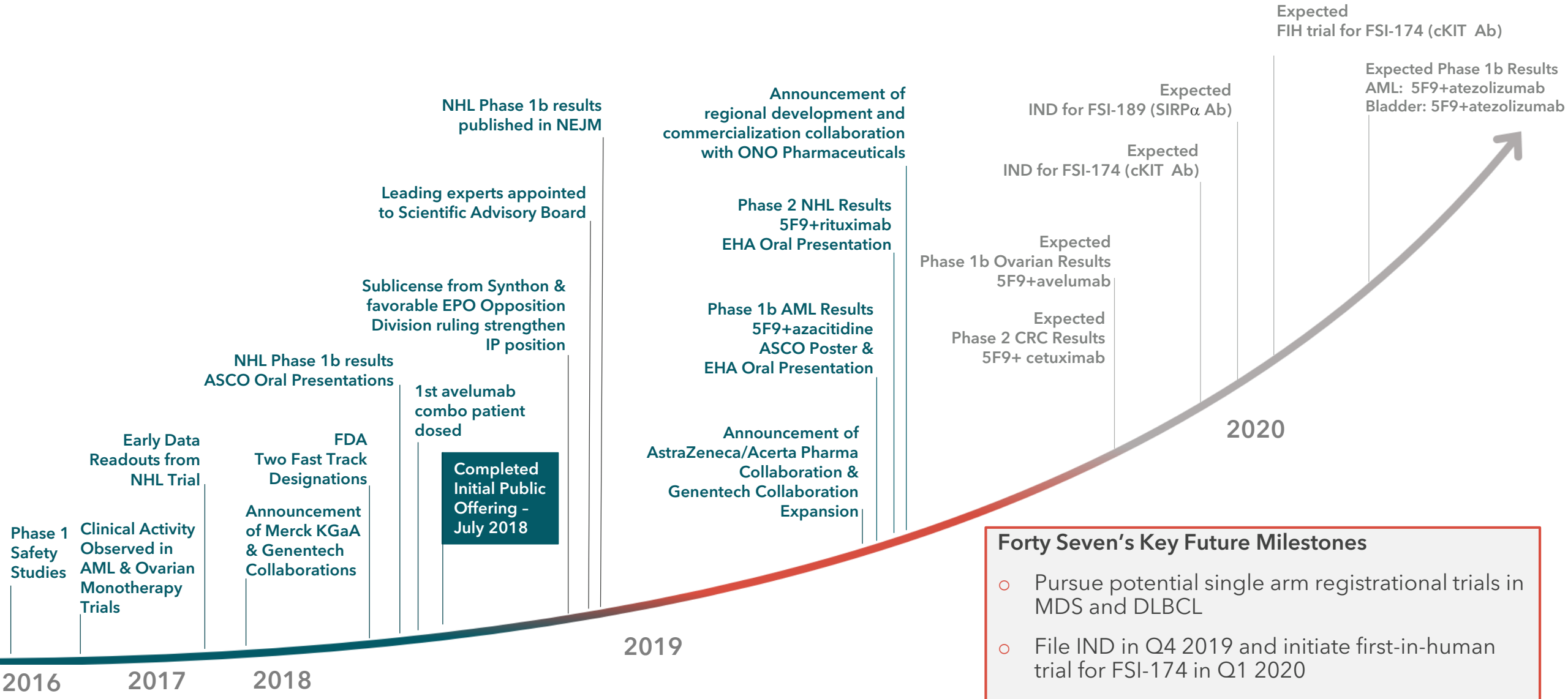
Key Points to FSI-174

- Antibody based chemo and radiation free conditioning regimen
- Selective depletion of hematopoietic stem cells
- No depletion of lymphocytes → no immune suppression
- Potential for expanding patient populations and indications
- POC established in mice and NHPs
- On track for IND Q4 2019 and FIH trial Q1 2020

Our Intellectual Property Rights Covering CD47, SIRPα, cKIT and Other Immunomodulatory Compounds

- We own or have a license to approximately 143 pending patent applications worldwide and 178 issued patents worldwide including 31 issued US patents
- 5F9/FSI-189 (Anti-SIRPα) are protected by multiple patent positions
  - Antibody and drug product composition
  - Methods of use: monotherapy and combination therapy
  - Methods of use: proprietary prime → maintenance dosing
    - Patents granted in U.S, Europe and Japan; Expiration date 2034 excluding patent term extensions
  - Proprietary structure of anti-SIRPα antibodies to prevent inhibition of phagocytosis (Scorpion effect) – patent application filed
- FSI-174 (Anti-cKIT) – patent applications filed
  - Antibody and drug product composition
  - Methods of use: for autologous and allogeneic HSC transplantation including gene therapy indications
- In August 2018, the European Patent Office (EPO) Opposition Division ruled in favor of Forty Seven, rejecting challenges to our licensed European patent that relates to the use of CD47 antibodies (not just 5F9) to treat cancer by targeting cancer cells for phagocytosis

Forty Seven Development Progress and Future Plans



Forty Seven's Key Future Milestones

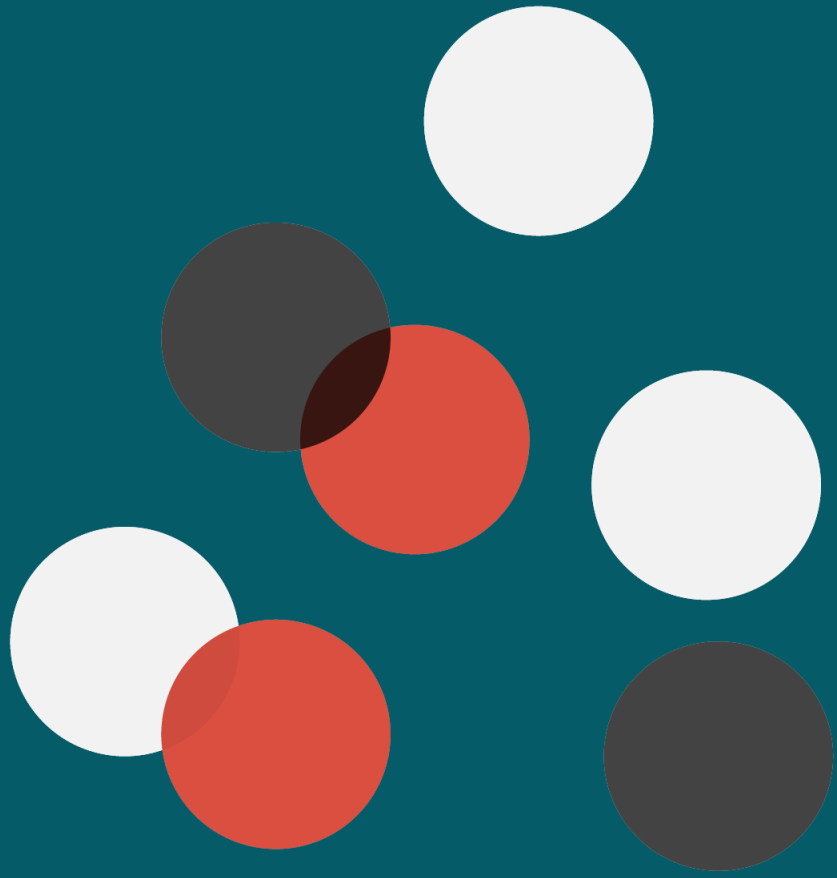
- Pursue potential single arm registrational trials in MDS and DLBCL
- File IND in Q4 2019 and initiate first-in-human trial for FSI-174 in Q1 2020
- File IND in Q1 2020 and initiate first-in-human trial for FSI-189 in Q2 2020

NASDAQ: FTSV

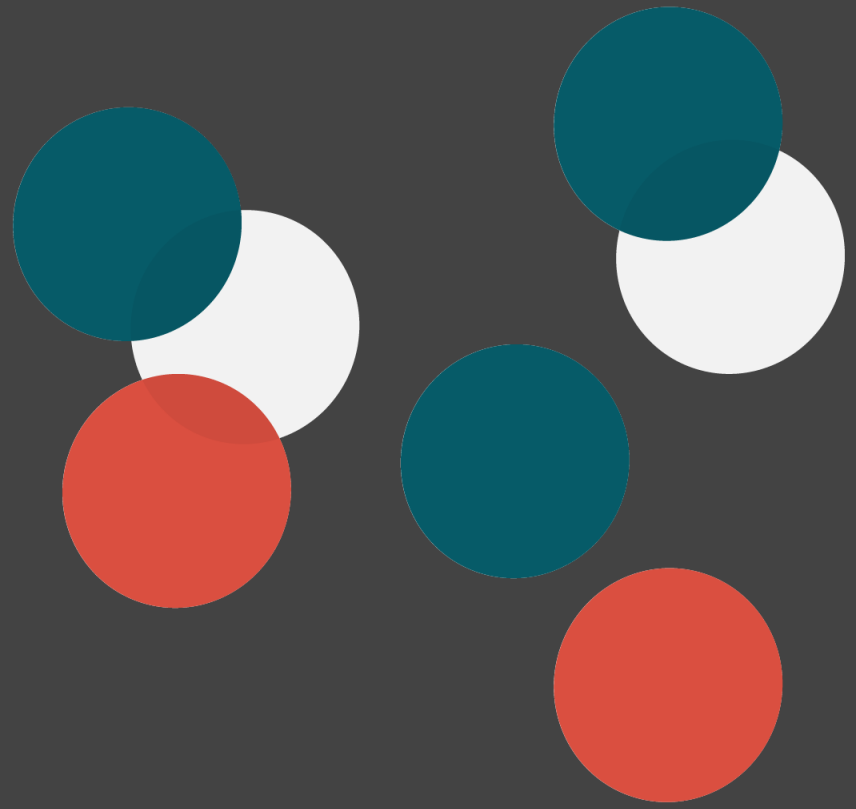
Forty Seven

Helping Patients Defeat Their Cancer

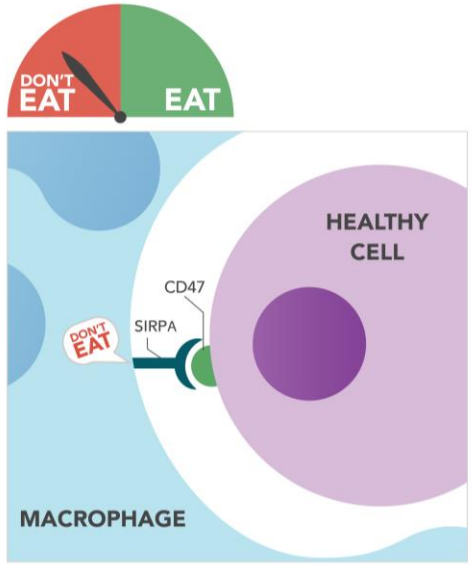
BOLD | HUMBLE | INQUISITIVE | PASSION TO ACTION



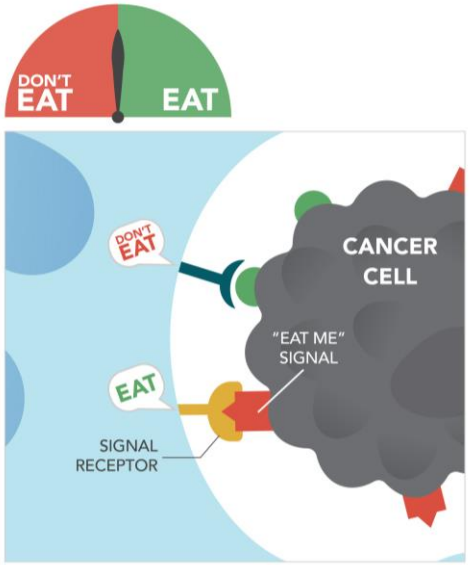
Back-Up Slides



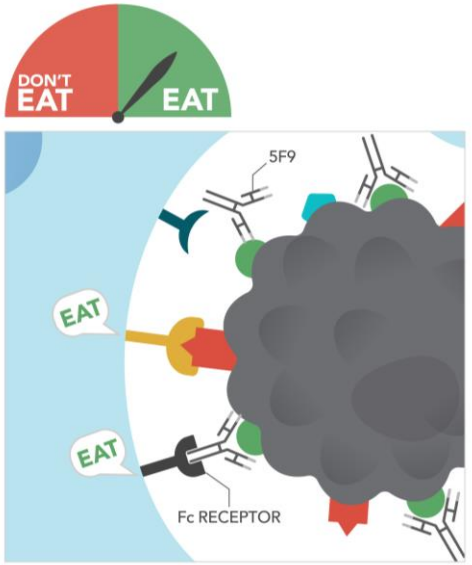
Anti-Cancer Efficacy of 5F9 Involves Tipping the Balance Between "Eat Me" and "Don't Eat Me" Signals



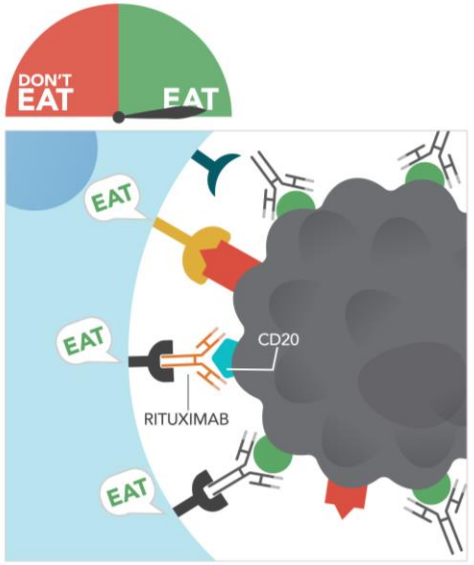
Macrophage with Healthy Cell



Macrophage with Cancer Cell



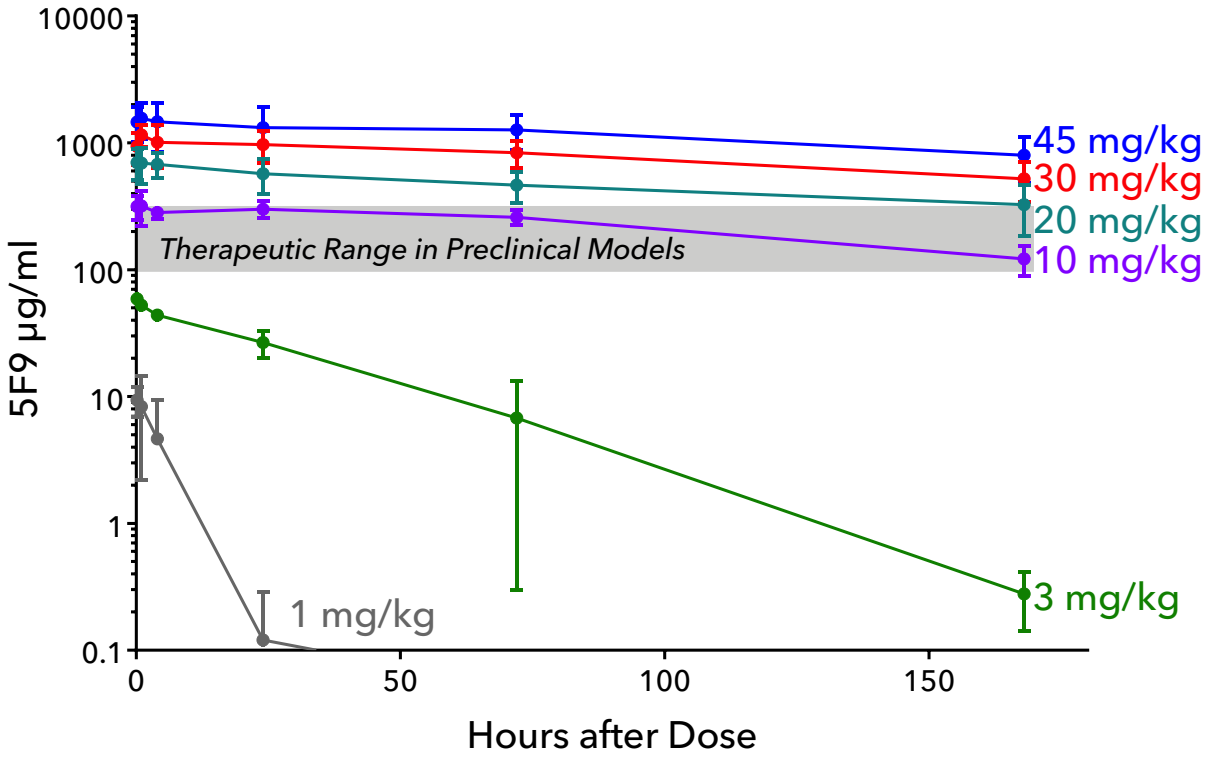
Macrophage with Cancer Cell and 5F9



Macrophage with Cancer Cell and 5F9 + rituximab

5F9 Achieves Target Levels at Clinically Feasible Doses

5F9 Pharmacokinetics



Forty Seven, Inc. unpublished

Key Points:

- 5F9 can overcome the CD47 antigen sink at 10 mg/kg or higher
- At saturating doses antibody half-life is ~2 weeks
- Free plasma drug levels exceed preclinical activity thresholds (>100 to 250 µg/ml)
- Anti-5F9 antibodies were observed in 15/195 (7.7%) of patients across all studies with no PK or clinical consequences
- 30 mg/kg has been selected as dose for registrational studies

DLBCL Competitive Landscape – Select Competitors

Competitive Landscape 3L+						2L+ Stem Cell Transplant Ineligible
	Marketed Products			Products in Development		Products in Development
	SoC (R-Chemo)	Axicabtagene Ciloleucel (Yescarta®)	Polatuzumab (Polivy®) + BR	Selinexor	REGN1979	Tafasitamab (MOR208) + Lenolidamide
Study Phase (# of Patients)	SCHOLAR-1 N=636	Phase 2 N=101	Phase 2 N=40	Phase 2 N=115	Phase 1 N=39	Phase 2 N=81
Median Prior Tx	2-3	3	2	2	3	2
ORR	26%	83%	63% (35% in 3L)	30%	31%	60% (50% in 3L)
CR	7%	58% 37% @ median f/u 27.1mos	50%	10%	13%	43%
Safety/ Tolerability (% ≥ Gr3)		• CRS (11%) • Neuro (32%)	• Neutropenia (42%) • Thrombocytopenia (40%) • Pneumonia (16%) • Discontinuation due to AEs (31%)	• Neutropenia (20%) • Anemia (11%) • Thrombocytopenia (35%)	• CRS (7%)[57% Gr 1-2] • Lymphocytopenia (20%) • Neutropenia (17%) • Neurologic AE (4%) [50% Gr 1-2]	• Neutropenia (48%) • Thrombocytopenia (17%) • Anemia (23%) • 43% required LEN dose reduction
Source	Blood 2017	Package Insert & Lancet Oncol 2019	Package Insert & ASCO 2018	ASH 2018	EHA 2019	ICML 2019

MDS: Currently Approved Therapies in Higher Risk Patients

	Vidaza (azacitidine)	Dacogen (decitabine)
Approval Date	2004	2006
Label Indication / Studied Patient Population	Treatment of MDS subtypes: RA, RARS, RAEB, RAEB-T, CMML	Treatment of MDS subtypes: RA, RARS, RAEB, RAEB-T, CMML and IPSS Int-1, Int-2, or High Risk
Objective Response (CR + PR)	16%	17%
CR	6%	9%
PR	10%	8%
Response Criteria	Pre-dates IWG Criteria; Protocol defined	IWG Criteria 2000
Source	Vidaza US Package Insert	Dacogen US Package Insert

CMML: chronic myelomonocytic leukemia
IPSS: International Prognostic Scoring System
RA: refractory anemia
RAEB: refractory anemia with excess blasts
RAEB-T: refractory anemia with excess blasts in transformation
RARS: refractory anemia with ringed sideroblasts

- Approved hypomethylating agents for untreated high risk MDS currently provide a CR+PR rate of ~16-29%[1]

[1]Vidaza and Dacogen US package inserts; Silverman et al., 2002; Fenaux et al., 2009

5F9 Differentiated from Competitors in Clinical Development

	Forty Seven	Celgene	Trillium Therapeutics Inc.	ALX Oncology[1]	Surface Oncology	Innovent	arch oncology[3]	TG Therapeutics / novimmune	天境生物 I-MAB Biopharma
Compound	5F9	CC-90002	TTI-621	TTI-622	ALX148	SRF231	IBI188	AO-176	TG-1801 (NI-1701)	TJC4
Molecule	mAb	mAb	WT SIRPα fusion protein	WT SIRPα fusion protein	High affinity SIRPα fusion protein	mAb	mAb	mAb	Bi-specific Ab CD47/CD19	mAb
Class	IgG4	IgG4	IgG1	IgG4	Inactive Fc	IgG4	IgG4	IgG2	IgG1	--
Clinical Start Date	August 2014 first-in-clinic	March 2015	January 2016	May 2018	February 2017	March 2018	January 2019	February 2019	February 2019	June 2019
Study Stage	Phase 2	Phase 1b	Phase 1a/b	Phase 1a/b	Phase 1	Phase 1 *Deprioritized*[2]	Phase 1 (China)	Phase 1	Phase 1	Phase 1
Clinical Trials	8	1	2	1	1	1	1	1	1	1
Partner(s)	AstraZeneca/Acerta, Genentech, Merck KGaA, Lilly	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TG Therapeutics	N/A

Forty Seven

- Most advanced program
  - First-in-clinic with initial trial started in August 2014
  - 8 trials ongoing with >290 patients dosed for up to 2 years
  - 4 pharma collaborations
  - Robust intellectual property
  - Efficient manufacturing process; relationship with Lonza
- 5F9 has the IgG4 subclass
  - Allows for safe dosing by avoiding toxicity to normal tissues caused by antibody-dependent cell-mediated cytotoxicity and complement dependent cytotoxicity[4]
- Propriety dosing regimen
  - Mitigates transient anemia and enables high maintenance dose levels

1. *Formerly Alexo Therapeutics*
2. *Surface Oncology reported 2 hematologic DLTs (Dec 2018) and a decision not to open expansion cohorts. The program was deprioritized.*
3. *Formerly Tioma, formerly Vasculox*
4. *Davies and Sutton, Immunology Reviews, 2015*

Competitor Anti-SIRPα Programs

	FSI-189	CC-95251	BI 765063 (OSE-172)	SL-171154	ADU-1805	CTX-5861	Lead selection ongoing	No lead selected	No lead selected	No lead selected
Compound										
Molecule	mAb	mAb	mAb	Fusion protein SIRPα-Fc-CD40L	mAb	Tetravalent common light chain SIPRα x PD-L1 bispecific Ab	D-peptide inhibitors of SIRPα	Multiple mAb's anti-SIRPα & anti-SIRPα/γ	Multiple mAb's anti-SIRPα	Multiple mAb's anti-SIRPα
Class	IgG1 (dead Fc)	--	IgG4	--	IgG2	--	--	--	--	--
Clinical Start Date	Projection: 2Q 2020	January 2019	March 2019 *(FPI June)*	--	--	--	--	--	--	--
Study Stage	Preclinical	Phase 1	Phase 1	Preclinical	Preclinical *Program Deprioritized*[1]	Preclinical	Preclinical	Preclinical	Preclinical	Preclinical
Clinical Trials	--	1	1	--	--	--	--	--	--	--

- FSI-189 advantages
  - Binds both major allelic variants -> important for Asia where second allelic variant is common
  - Specifically binds SIRPα but NOT SIRP γ -> potentially important for activation of innate immune system – CD47-SIRPγ binding might be critical for T-cell activation
  - Designed with inactivated "dead" Fc -> Fc binding on macrophages can inhibit macrophage function - patent application filed
- Two anti-SIRPα programs, Celgene and OSE/BI, have entered the clinic in Q1 2019
  - Both programs have focused their initial Phase 1 studies in solid tumors
  - CC-95251: monotherapy and in combination with cetuximab in advanced solid tumors
  - BI 765063 (OSE-172): monotherapy and in combination with BI 754091 (anti-PD-1 mAb) in advanced solid tumors
- Multiple companies pursuing preclinical SIRPα programs
- Celgene, Arch Oncology, and ALX Oncology have ongoing programs targeting both CD47 and SIRPα

1. *Aduro Biotech announced in January 2019 that their anti-SIRPα program has been deprioritized and will be seeking partnership opportunities for the program. In addition, a significant reduction in workforce was announced along with and a focus on STING and APRIL programs*
2. *Formerly Tioma, formerly Vasculox*
3. *Formerly Alexo Therapeutics*

Competitor Anti-cKIT Programs

	FortySeven	magenta THERAPEUTICS	Jasper THERAPEUTICS INC.
Compound	**FSI-174**	**C-200**	**AMG-191**
Molecule	mAb against CD117	Anti-CD117 amanitin ADC	mAb against CD117
Class	IgG1 + IgG4	IgG	IgG1 (dead Fc)
Clinical Start Date	Q1 2020	2020	2018
Study Stage	Preclinical	Preclinical	Phase 1 (enrolling)
Pros	No cytopenias	Single antibody infusion	Single antibody infusion

Standard of Care (Busulfan):

- Increased risk for hepatic sinusoidal obstructive syndrome, myeloablation with busulfan is associated with increased treatment-related mortality
- The major organs most often affected by busulfan treatment are the lungs