



NASDAQ: FTSV  
**Forty Seven**

Helping Patients Defeat Their Cancer

## Corporate Overview

January 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](http://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

- Founded in 2015 by Irv Weissman and colleagues at Stanford University, identifying the CD47-SIRP $\alpha$  pathway as a novel macrophage immune checkpoint
- Developing a pipeline of macrophage-directed therapies
- Developed 5F9, our leading commercial CD47 targeting antibody that is well-tolerated, has demonstrated clinical activity in monotherapy and in combination therapy with rituximab
- Advancing novel SIRP $\alpha$  and cKIT targeting antibodies towards IND
- IPO in July 2018 and added to NASDAQ Biotechnology Index (NBI) effective December 24, 2018
- Cash through 1H2020
- Leveraging our scientific insights and pharmaceutical drug development expertise to develop novel therapies that activate the immune system to **help patients defeat their cancer**



## Phase 1b NHL data published in the New England Journal of Medicine

The NEW ENGLAND JOURNAL of MEDICINE

### Original Article

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

Ranjana Advani, M.D., Ian Flinn, M.D., Ph.D., Leslie Popplewell, M.D., Andres Forero, M.D., Nancy L. Bartlett, M.D., Nilanjan Ghosh, M.D., Ph.D., Justin Kline, M.D., Mark Roschewski, M.D., Ann LaCasce, M.D., Graham P. Collins, M.D., Thu Tran, B.S., Judith Lynn, M.B.A., B.A., James Y. Chen, M.D., Ph.D., Jens-Peter Volkmer, M.D., Balaji Agoram, Ph.D., Jie Huang, Sc.D., Ravindra Majeti, M.D., Ph.D., Irving L. Weissman, M.D., Chris H. Takimoto, M.D., Ph.D., Mark P. Chao, M.D., Ph.D., and Sonali M. Smith, M.D.

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.).

- First clinical publication of a CD47 targeting agent – November 1, 2018

## 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



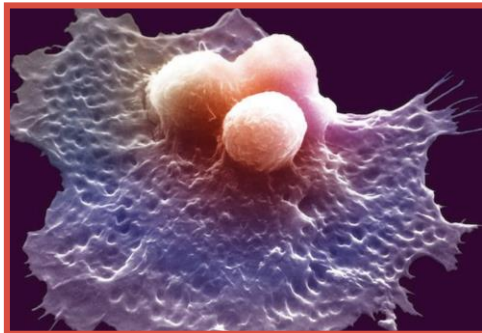
# Highly Experienced Leadership Team

Management Team:	
Mark McCamish, M.D., Ph.D. <i>President &amp; Chief Executive Officer</i>	   
Chris Takimoto M.D., Ph.D. <i>Chief Medical Officer</i>	   
Ann Rhoads, M.B.A. <i>Chief Financial Officer</i>	 
Craig Gibbs, Ph.D., M.B.A. <i>Chief Business Officer</i>	  
Norm Kruse, J.D., Ph.D. <i>Chief Patent Counsel</i>	   
Kyle Elrod <i>SVP of Corporate Planning &amp; Operations</i>	   
Mark Chao, M.D., Ph.D. <i>VP of Clinical Development</i>	
Aimee Murphy <i>VP of Clinical Operations</i>	 
Jens-Peter Volkmer, M.D. <i>VP of Research &amp; Early Development</i>	 
Qinghai Zhao, Ph.D. <i>VP of Technical Development &amp; Manufacturing</i>	   

Board of Directors:			
Mark McCamish, M.D., Ph.D.	Forty Seven, Inc.	Dennis Henner, Ph.D.	Blackstone Life Sciences (formerly Clarus)
Chris Schaepe	Lightspeed Venture Partners	Irving Weissman, M.D.	Stanford School of Medicine
Jeff Bird, M.D., Ph.D.	Sutter Hill Ventures	Ravi Majeti, M.D., Ph.D.	Stanford School of Medicine
Kristine Ball, C.P.A.	Menlo Therapeutics	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% <sup>1</sup>	20-40% <sup>1</sup>
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

<sup>1</sup> Gentles and Alizadeh, Nature Medicine 2015.



# Our Pipeline

Drug Candidate/Focus		Discovery	Preclinical	Phase 1	Phase 2	Phase 3	Worldwide Rights
5F9 Anti-CD47 Antibody	Monotherapy	Solid Tumor & Ovarian					
		AML Mono and Combo: Azacitidine					
	Tumor Targeting Antibody Combinations	NHL Combo: Rituximab					
		CRC Combo: Cetuximab					
	T Cell Checkpoint Inhibitor Combinations	Ovarian: Avelumab					
		Bladder: Atezolizumab					
		AML: Atezolizumab					
FSI-189 Anti-SIRPα Antibody		Solid Tumor					
FSI-174 Anti-cKIT Antibody		HSC/Bone Marrow Transplant					

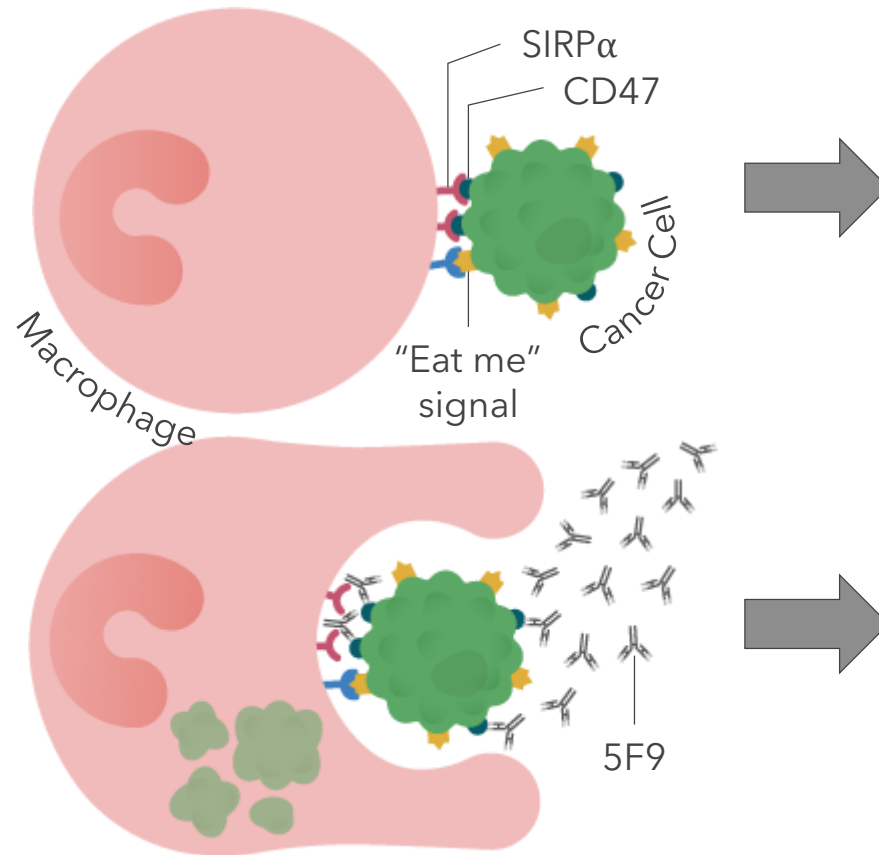


## 5F9: Anti-CD47 Antibody

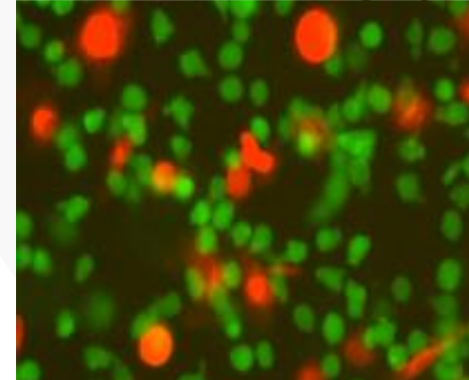




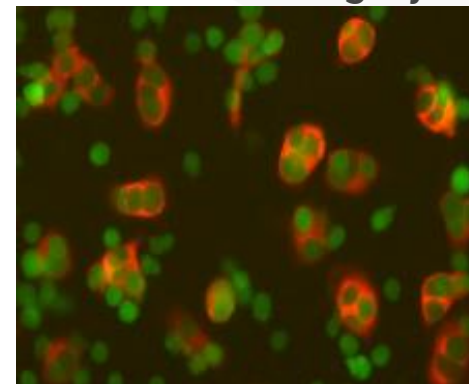
# 5F9 is a Novel Macrophage Immune Checkpoint Inhibitor Targeting CD47



Control mAb: No Phagocytosis



Anti-CD47 mAb: Phagocytosis

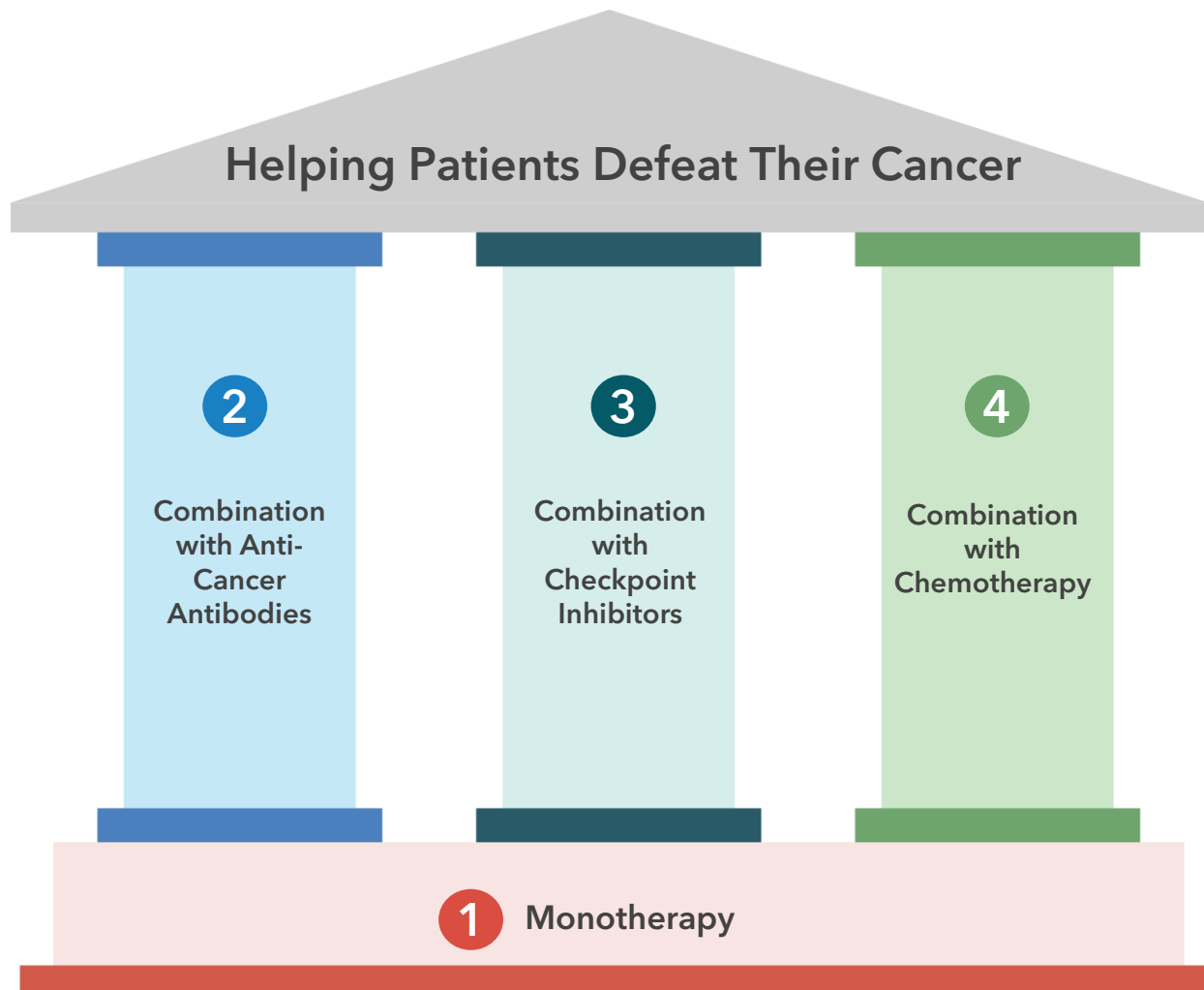


Macrophages  
Cancer cells

- 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



## **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**

Induction of pro-phagocytic signals on tumor cells by chemotherapy facilitates synergistic phagocytosis

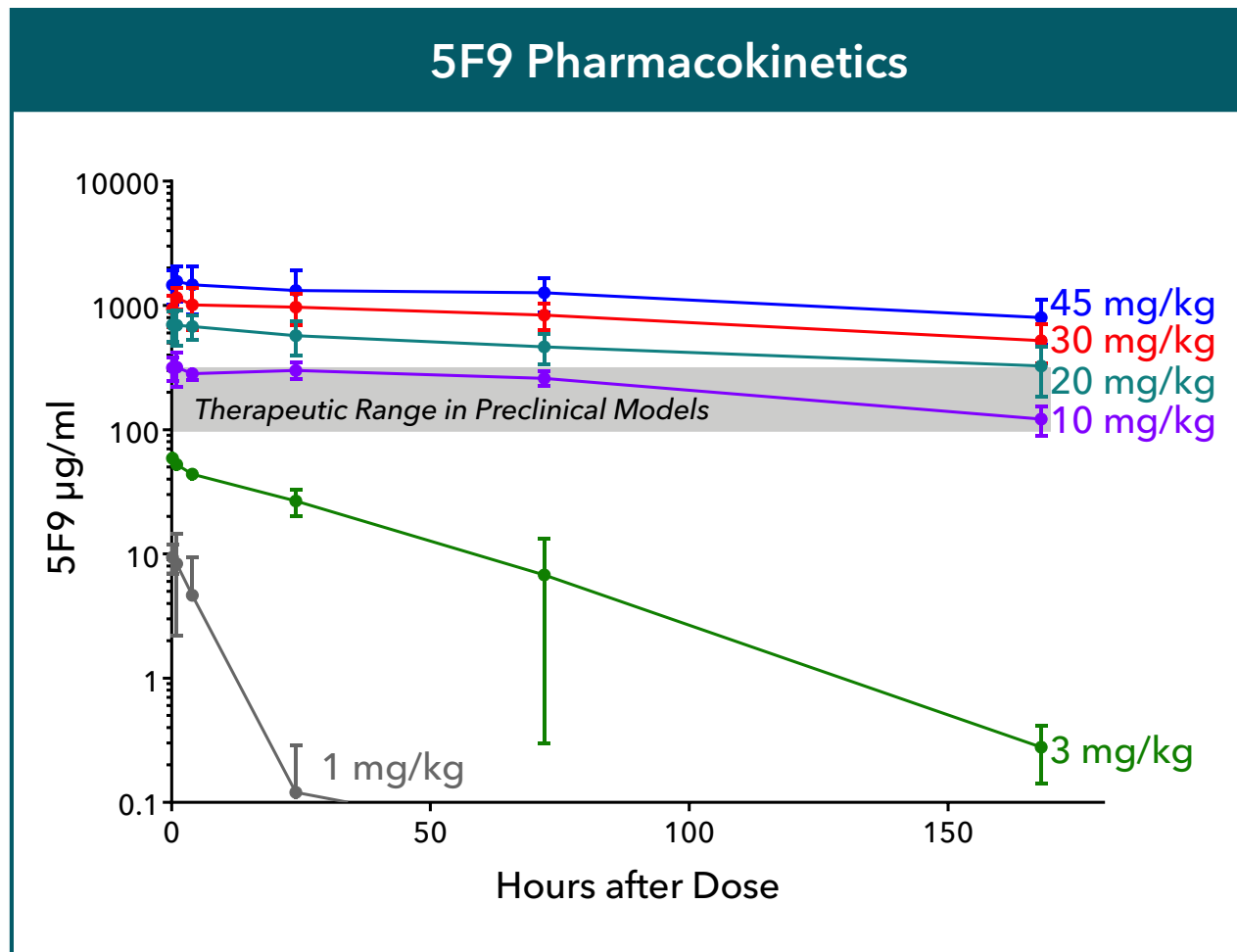


# Clinical Trials Currently Ongoing or Planned

	Monotherapy		In Combination with Cancer-Specific Antibodies		In Combination with Checkpoint Inhibitors			In Combination with Chemotherapy
Indication	Solid Tumor	Acute Myeloid Leukemia	Colorectal Cancer	Non-Hodgkin's Lymphoma	Ovarian Cancer	Bladder Cancer	Acute Myeloid Leukemia	Acute Myeloid Leukemia/ Myelodysplastic syndrome
Study Stage	Phase 1	Phase 1	Phase 1b/2	Phase 1b/2	Phase 1b	Phase 1b	Phase 1b	Phase 1b
Therapy	5F9	5F9	5F9 + Cetuximab	5F9 + Rituximab	5F9 + Avelumab	5F9+ Atezolizumab	5F9 + Atezolizumab	5F9 + Azacitidine
Patient Group	Advanced solid tumors including ovarian cancer	Relapsed/ refractory AML	Phase 1b: Advanced solid tumors Phase 2: KRAS WT & mutant advanced CRC	Phase 1b: Relapsed/refractory B-cell NHL Phase 2: R/R indolent lymphoma and R/R diffuse large B-cell lymphoma	Safety: Advanced solid tumors Expansion: platinum-refractory ovarian cancer (checkpoint naïve)	Bladder cancer	AML	Treatment-naïve/unfit for induction chemotherapy
Primary Objective	Safety & tolerability, recommended dose	Safety & tolerability, recommended dose	Safety & tolerability, recommended dose, and efficacy (Phase 2)	Safety & tolerability, recommended dose, and efficacy (Phase 2)	Safety & tolerability, efficacy	Safety & tolerability, efficacy	Safety & tolerability, efficacy	Safety & tolerability, efficacy
Status	Dosed up to 45 mg/kg/wk	Dosing at 30 mg/kg weekly	Dosing up to 45 mg/kg 5F9 plus full dose cetuximab	Dosing up to 45 mg/kg 5F9 plus full dose rituximab	Dosing up to 45 mg/kg plus a full dose of avelumab	Anticipated 1H 2019 start	Anticipated 1H 2019 start	Dosing at 30 mg/kg weekly plus full dose of azacitidine
Clinical Collaborators	--	--						



# 5F9 Achieves Target Levels at Clinically Feasible Doses



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 15/190 (7.7%) of patients across all studies with no PK or clinical consequences



# 5F9 Monotherapy is Safe and Well-Tolerated

Solid Tumor Summary (n = 73)			
Adverse Event (AE) Term Patients treated at 10 (3 pts), 20 (39 pts), 30 (25 patients), or 45 (6 patients) mg/kg weekly	AE Grade		
	Any	3	4
Anemia	36 (49%)	8 (11%)	0
Hemagglutination	22 (30%)	1 (1%)	0
Hyperbilirubinemia/Blood bilirubin increased	11 (15%)	3 (4%)	0
Thrombocytopenia	9 (12%)	0	0
Neutropenia	2 (3%)	0	0
Lymphopenia/Lymphocyte count decreased	12 (16%)	7 (10%)	3 (4%)
Fatigue	36 (49%)	0	0
Headache	33 (45%)	1 (1%)	0
Chills	28 (38%)	0	0
Pyrexia	26 (36%)	0	0
Infusion-related reaction	16 (22%)	4 (5%)	0
Nausea	13 (18%)	0	0
Photopsia	7 (10%)	0	0
Back pain	7 (10%)	1 (1%)	0
Myalgia	7 (10%)	0	0
AST elevation	4 (5%)	1 (1%)	1 (1%)
ALT elevation	4 (5%)	0	1 (1%)

## Key Points:

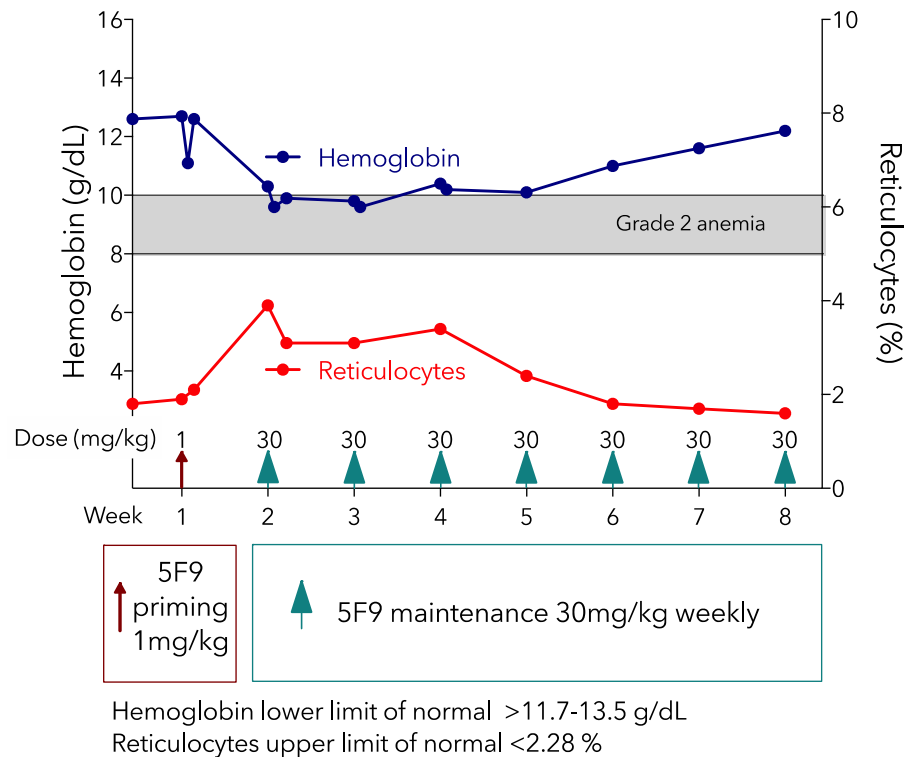
- Expected red blood cell findings are exceedingly easy to manage using a priming dose regimen\*
- Well tolerated at high and extended exposures
- 5F9 AE profile comparable as monotherapy or in combination
- MTD not reached with dose escalation up to 45 mg/kg and >250 patients treated as monotherapy or in combination

\* Dose-regimen proprietary to Forty Seven, Inc.



# Anemia is Mitigated with a Proprietary Prime and Maintenance Dosing Regimen

## Anemia with Compensatory Reticulocytosis



### Key Points:

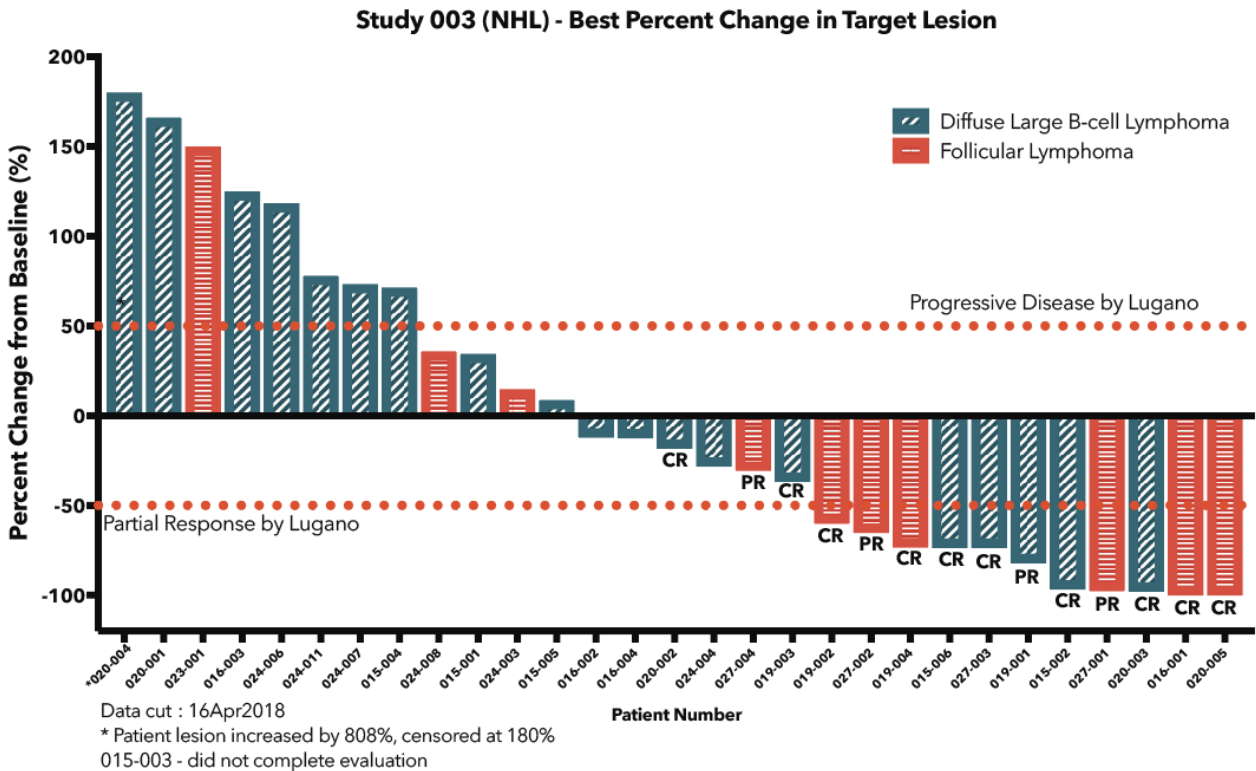
- Proprietary priming dose results in an early, temporary decline in hemoglobin levels corresponding to mild to moderate anemia
- Hemoglobin levels return to baseline even with continued treatment with 5F9 at significantly higher doses (up to 45mg/kg)
- Mild to moderate anemia during the first two weeks of starting therapy
- Associated with a temporary and a reversible reticulocytosis that resolves during the dosing period



# Antitumor Activity Observed with Rituximab Combination in Relapsed or Refractory NHL

Response	All Patients n=30	DLBCL n=20	Follicular Lymphoma n=10
Objective Response Rate (ORR)	47% (14)	35% (7)	70% (7)
Partial Response (PR)	13% (4)	5% (1)	30% (3)
Complete Response (CR)	33% (10)	30% (6)	40% (4)
Disease control rate (CR+PR+SD)	57% (17)	50% (10)	70% (7)

Data cut 16 Apr 2018 from Phase 1b/2 trial

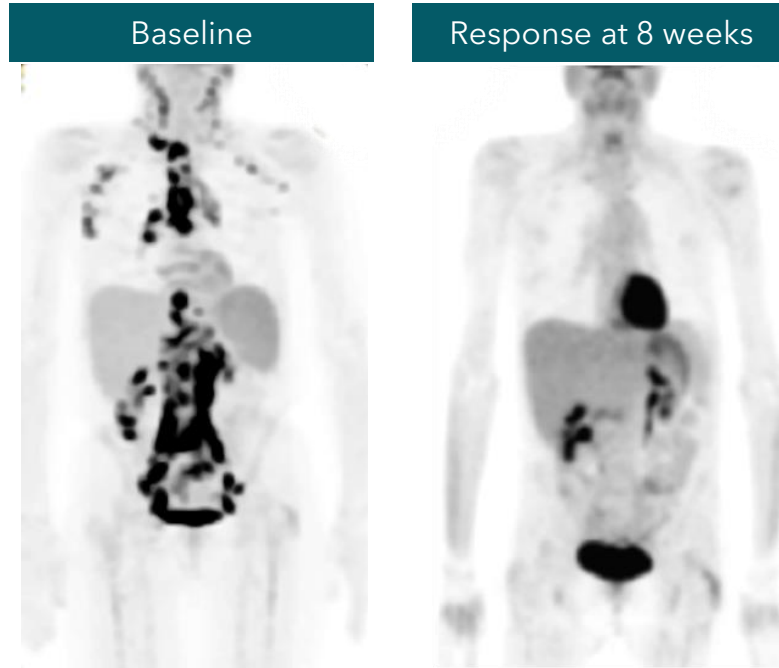


- Clinical activity is observed in rituximab-refractory patients (more than 90% of patients evaluated were rituximab-refractory)
- Approximately 90% of the patients who had an initial response, maintained their response, suggesting durability. One patient continues on therapy in complete remission after 14 months of treatment



# Therapy Eliminates Disease in Refractory Disease Patients

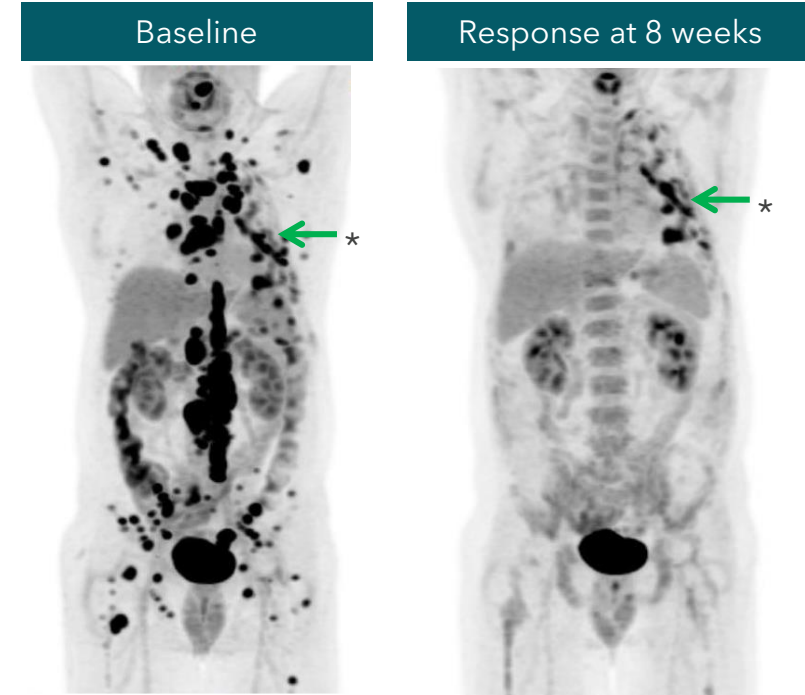
Patient 20-003: FL (CR)



PET scan

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

Patient 27-003: DLBCL (CR)



\* Hypermetabolic calcified left pleural thickening from prior surgery and not lymphoma

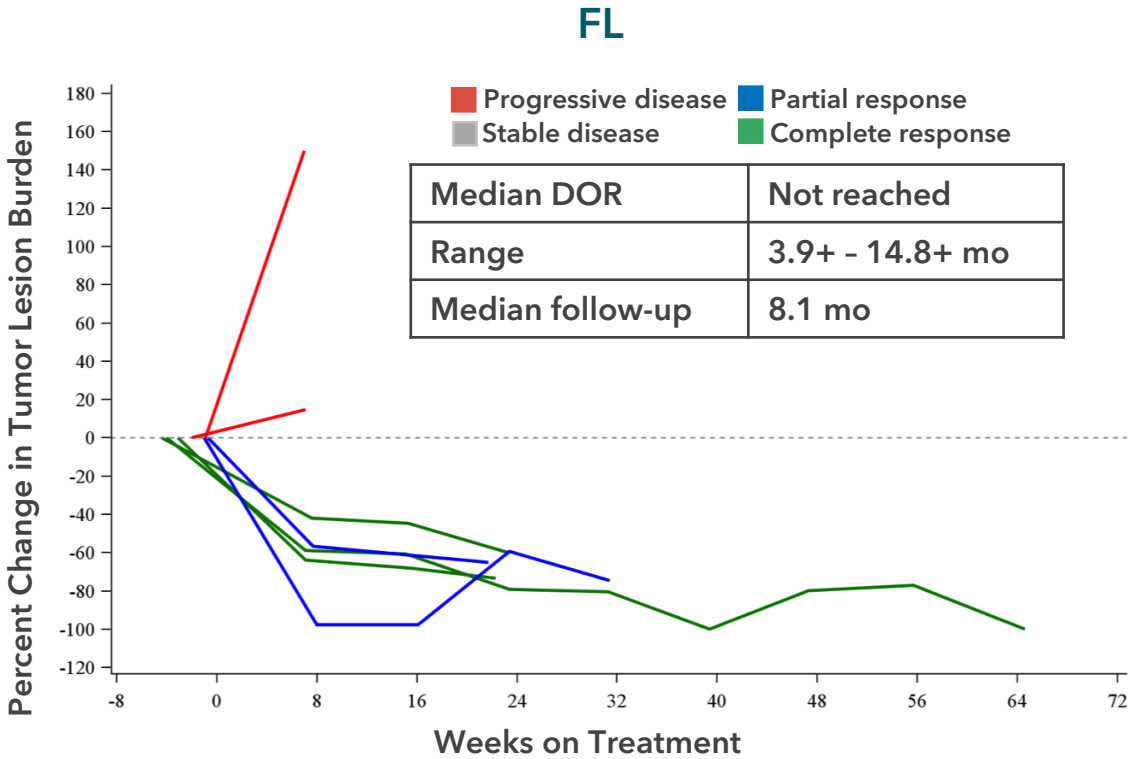
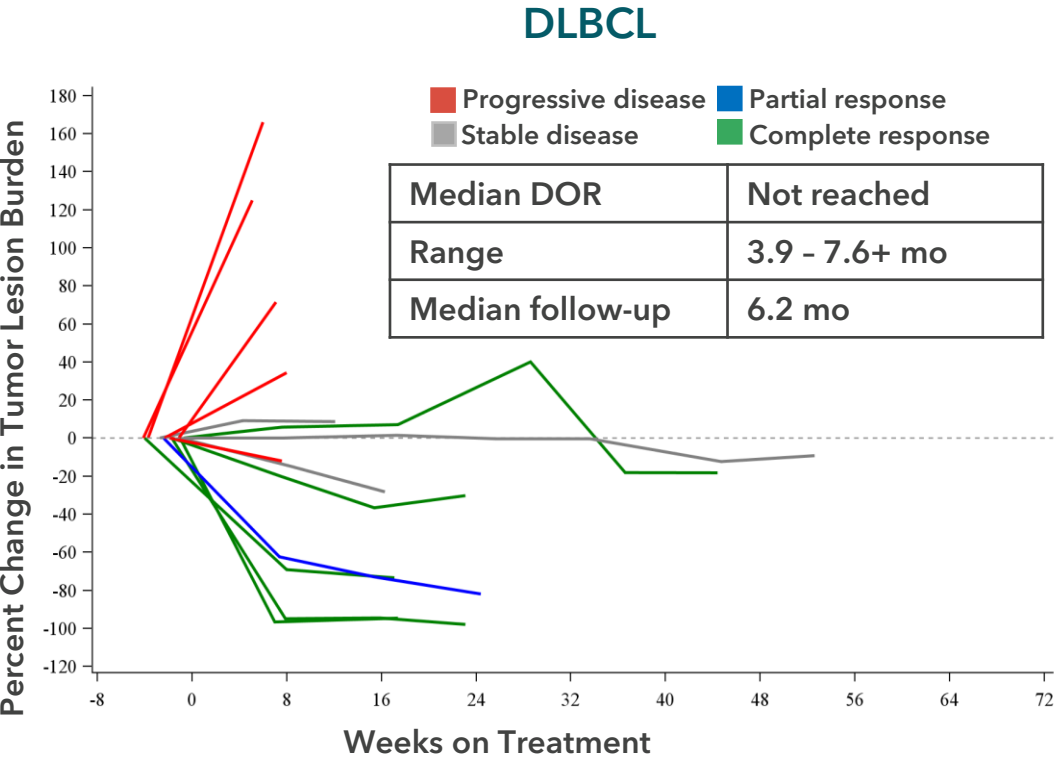
PET scan

Advani et al., ASCO oral presentation 2018

- 56M with primary refractory DLBCL
- Two prior lines of therapy, bulky disease
- Complete response at 8 weeks



# Durable Responses Observed in Phase 1b DLBCL and FL Patients<sup>1</sup>



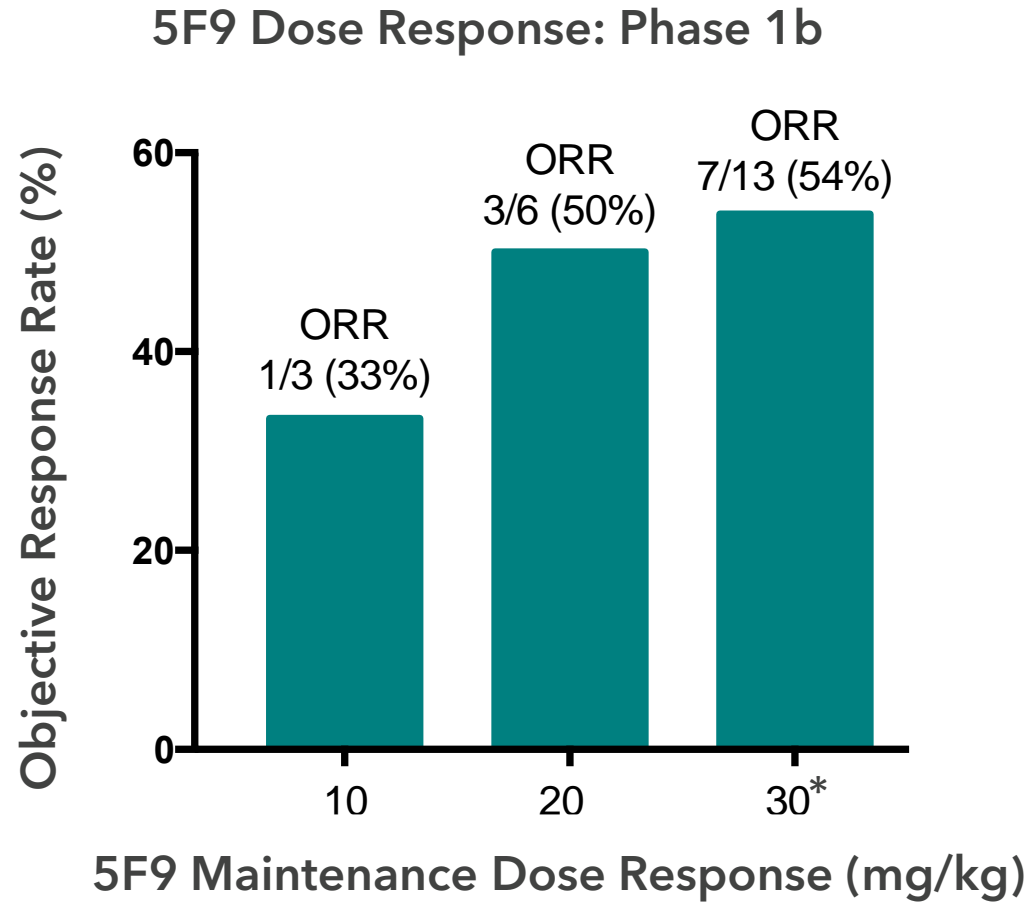
Advani et al., ASCO oral presentation 2018

- Two DLBCL patients improved their responses: From SD to CR and PR to CR, both ongoing
- Median duration of response not reached in either cohort with longest patient in CR for over 14 months

<sup>1</sup> These plots show data from 22 Phase 1b patients as of April 16, 2018. The plots exclude 8 Phase 2 patients whose responses are included on the previous slide. Of these Phase 2 patients, 3 had objective responses and 5 had progressive disease.



# 5F9 Dose Optimization Continues to be Explored



\*30 mg/kg cohort includes a Day 11 loading dose

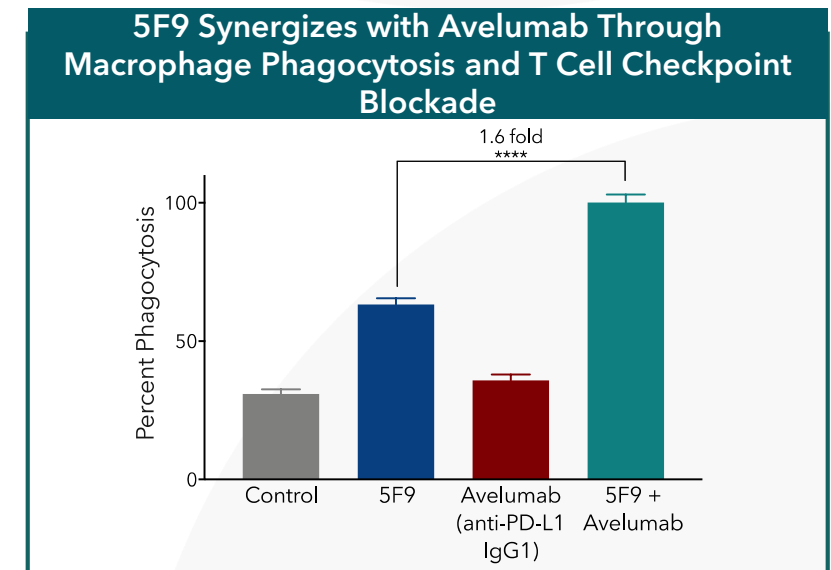
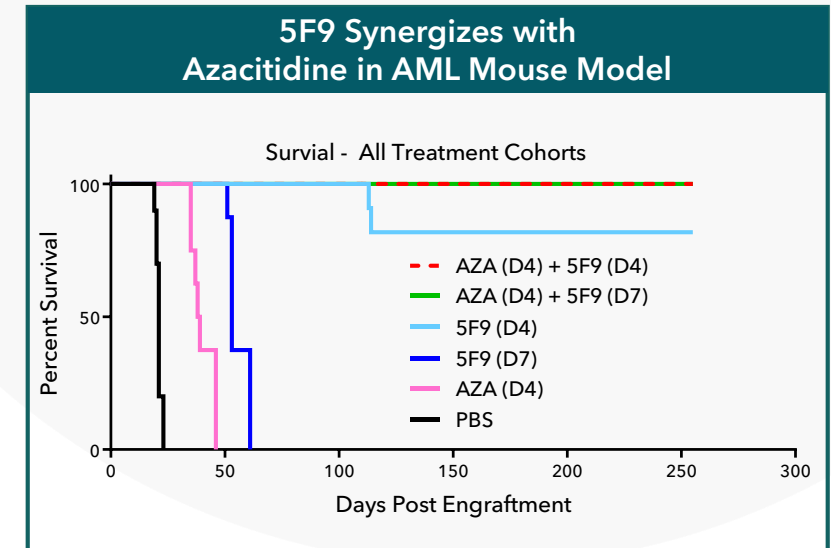
## Key Points:

- A dose response trend was observed with efficacy in Phase 1b NHL patients
- Exploring dose in patient cohorts at 30 and 45 mg/kg, with or without a loading dose in DLBCL and FL
- Data to be presented mid year 2019



# 5F9 Clinical Monotherapy Activity in Solid and Liquid Tumors and Preclinical Evidence Forms a Strong Rationale for Combination Studies

- 5F9 monotherapy activity is a key differentiating feature compared to other immunotherapies
- In acute myeloid leukemia, 5F9 has demonstrated biologic activity, leading to combination studies with atezolizumab in partnership with Roche/Genentech and with azacitidine
- Objective responses (2/21) in heavily pre-treated ovarian cancer are observed with 5F9 monotherapy, leading to a partnership with Merck KGaA's avelumab





# Catalyst Events Expected in 2019 - 2020

	Indication (Study Stage)	Therapy	Presented	Projected				
			2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2020
Monotherapy	Solid Tumor (Phase 1)	5F9	ASCO: Safety + Ovarian Initial Efficacy					
	Acute Myeloid Leukemia (Phase 1)	5F9	EHA: Monotherapy Safety					
Combination with Cancer- Specific Antibodies	Non-Hodgkin's Lymphoma (Phase 1b/2)	5F9 + rituximab	ASCO: Phase 1b Safety + Efficacy	Phase 2 Efficacy (DLBCL & Indolent Lymphoma)				
	Colorectal Cancer (Phase 1b/2)	5F9 + cetuximab	Phase 1b Safety + Phase 2 Efficacy					
Combination with Checkpoint Inhibitors	Ovarian Cancer (Phase 1b)	5F9 + avelumab	Phase 1b Safety + Efficacy					
	Bladder Cancer (Phase 1b)	5F9+ atezolizumab						Phase 1b Safety + Efficacy
	Acute Myeloid Leukemia (Phase 1b)	5F9+ atezolizumab						Phase 1b Safety + Efficacy
Combination with Chemotherapy	Acute Myeloid Leukemia (Phase 1b)	5F9+ azacitidine	Phase 1b Safety + Efficacy					



# Our Intellectual Property Rights Covering CD47 and Other Immunomodulatory Compounds

- We have a license to 100 issued patents worldwide including 25 US patents covering CD47 related inventions including 5F9
- 5F9 is protected by multiple patent positions
  - Composition of matter: drug product and formulations
  - Methods of use: monotherapy and combinations
  - Methods of use: proprietary prime → maintenance dosing
- As of June 2018, we have a license to approximately 98 pending patent applications worldwide, including 23 US patent applications covering:
  - Anti-SIRPα product candidates
  - Non-oncology indications for CD47/SIRPα based therapeutics
  - Other immuno-modulatory compounds
- In July 2018, we announced a settlement and license agreement with Synthon Biopharmaceuticals
  - Forty Seven to withdraw ongoing oppositions and challenges in the USPTO and EPO against patents licensed (from SSB) by Synthon
  - Provides a non-exclusive, worldwide sub-license to commercialize anti-CD47 antibodies including 5F9, to treat cancer in combination with certain other antibodies, such as cetuximab and rituximab
- In August 2018, the European Patent Office (EPO) Opposition Division ruled in favor of Forty Seven, rejecting challenges to our licensed European patent (EP '512)
  - EPO decision reaffirms Forty Seven's patent protection for the use of 5F9 in Europe and generally covers the use of CD47 antibodies (not just 5F9) to treat cancer by targeting cancer cells for phagocytosis





# FSI-189: Anti-SIRP $\alpha$ Antibody Program

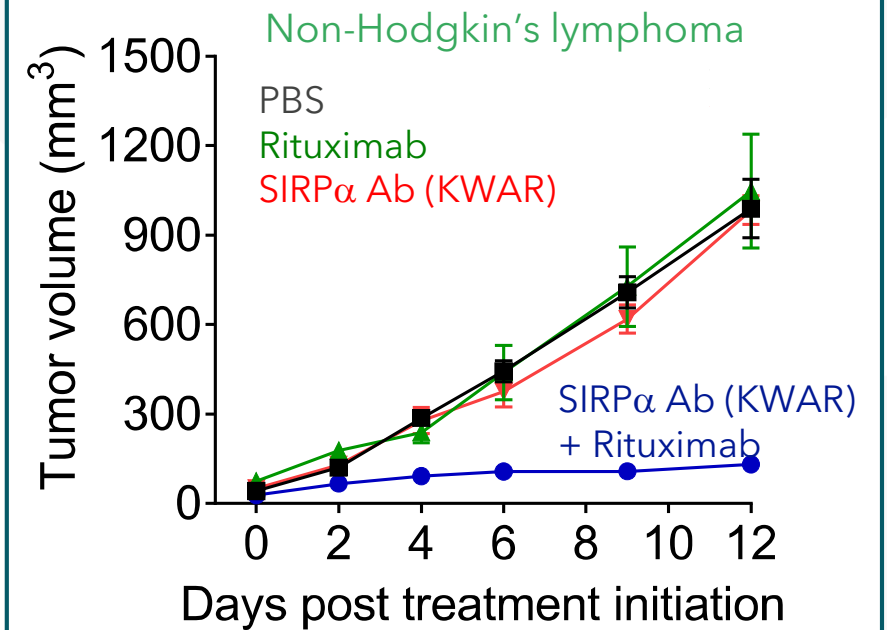




# FSI-189 Anti-SIRP $\alpha$ Antibody Program: Potential Next Generation Antibody in Oncology and Non-Oncology Indications

Target	<ul style="list-style-type: none"> <li>○ SIRP<math>\alpha</math>, CD172a</li> </ul>
MOA	<ul style="list-style-type: none"> <li>○ Blockade of CD47-SIRP<math>\alpha</math> macrophage immune checkpoint</li> <li>○ Enhanced target cell phagocytosis in combination with targeted antibodies</li> </ul>
Indication	<ul style="list-style-type: none"> <li>○ Oncology</li> <li>○ Non-oncology indications: stem cell transplantation in conjunction with cKIT antibody, infectious disease, cardiovascular disease</li> </ul>
Addressed Need	<ul style="list-style-type: none"> <li>○ Smaller antigen sink, potential for lower dose</li> <li>○ Potential for improved dosing convenience</li> <li>○ Lower cost of goods</li> <li>○ Lack of RBC binding, reduced potential for anemia</li> </ul>
Development Status	<ul style="list-style-type: none"> <li>○ Preclinical POC established</li> <li>○ Lead candidate selected</li> <li>○ Cell line development ongoing</li> </ul>
IP	<ul style="list-style-type: none"> <li>○ Composition of matter patent filed</li> </ul>

## Combination of SIRP $\alpha$ Antibody with Rituximab Enhances Phagocytic Potency and Prolongs Survival in Mouse Model



*Ring et al., PNAS 2017*



## FSI-174: Anti-cKIT Antibody Program

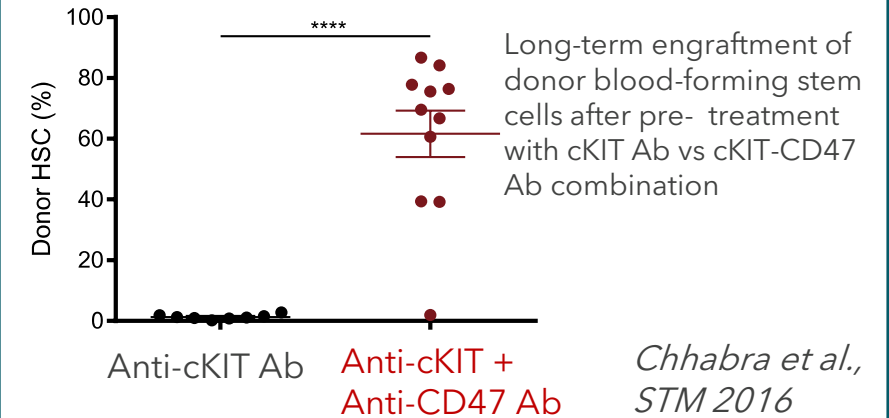




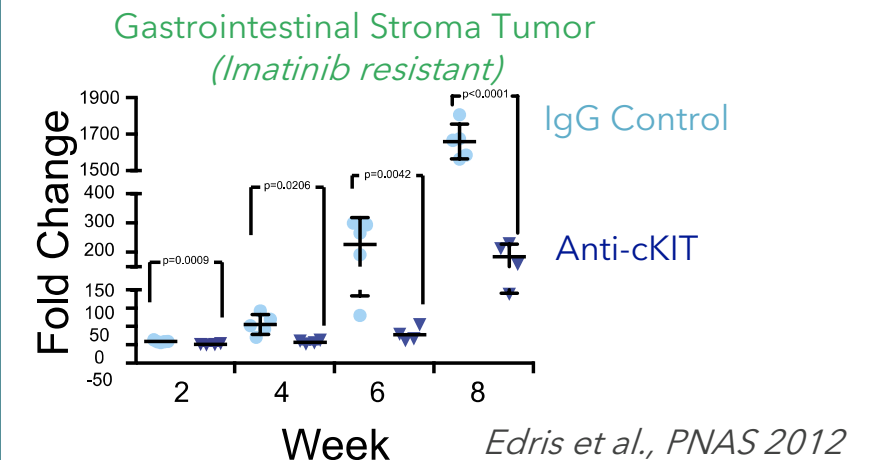
# FSI-174 Anti-cKIT Antibody Program

Target	<ul style="list-style-type: none"> <li>cKIT, CD117, stem cell growth factor receptor</li> </ul>
MOA	<ul style="list-style-type: none"> <li>Blockade of stem cell factor signaling</li> <li>Depletion of cKIT expressing cells</li> </ul>
Indication	<ul style="list-style-type: none"> <li>Hematopoietic stem cell (HSC) and bone marrow transplantation                             <ul style="list-style-type: none"> <li>Genetic disorders</li> <li>Leukemia &amp; lymphoma</li> <li>Autoimmune diseases</li> <li>Organ transplantation</li> </ul> </li> <li>Oncology: cKIT expressing cancers, e.g. leukemia, melanoma, renal cell cancer, gastrointestinal stroma tumor</li> </ul>
Addressed Need	<ul style="list-style-type: none"> <li>Improved conditioning regimens (chemo and radiation free)                             <ul style="list-style-type: none"> <li>Potential for lower incidence of morbidity and mortality</li> <li>Expanded patient populations and indications</li> </ul> </li> </ul>
Development Status	<ul style="list-style-type: none"> <li>Preclinical POC established for both indications</li> <li>Lead candidate selection completed</li> <li>Cell line development initiated June 2018</li> <li>IND anticipated Q4 2019</li> </ul>
IP	<ul style="list-style-type: none"> <li>Methods patent for cKIT Ab and cKIT + CD47 Ab filed</li> <li>Antibody compositions for Anti-cKIT and Anti-CD47 antibodies</li> </ul>

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

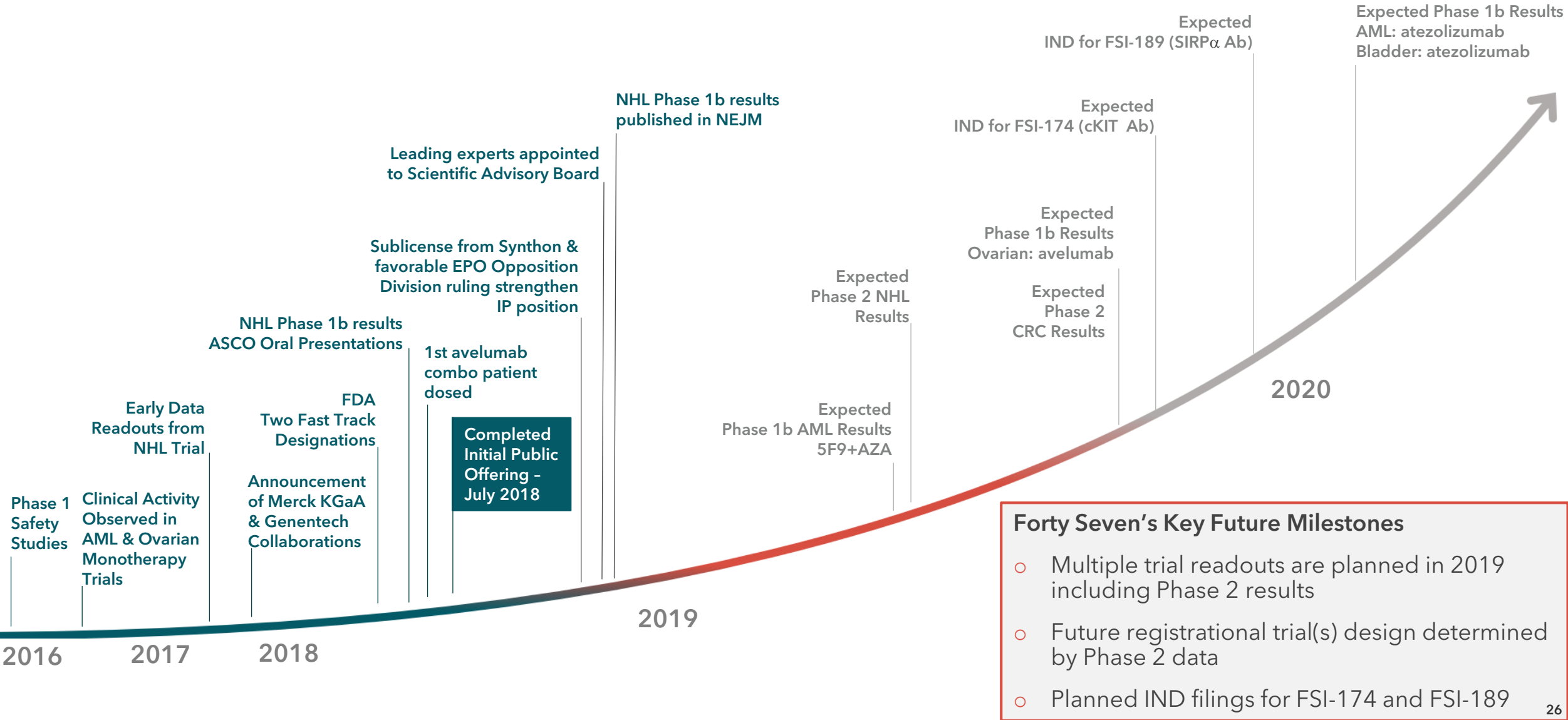


## cKIT Antibody Inhibits Tumor Growth in Mouse Model





# Forty Seven and 5F9 Development Progress and Future Plans

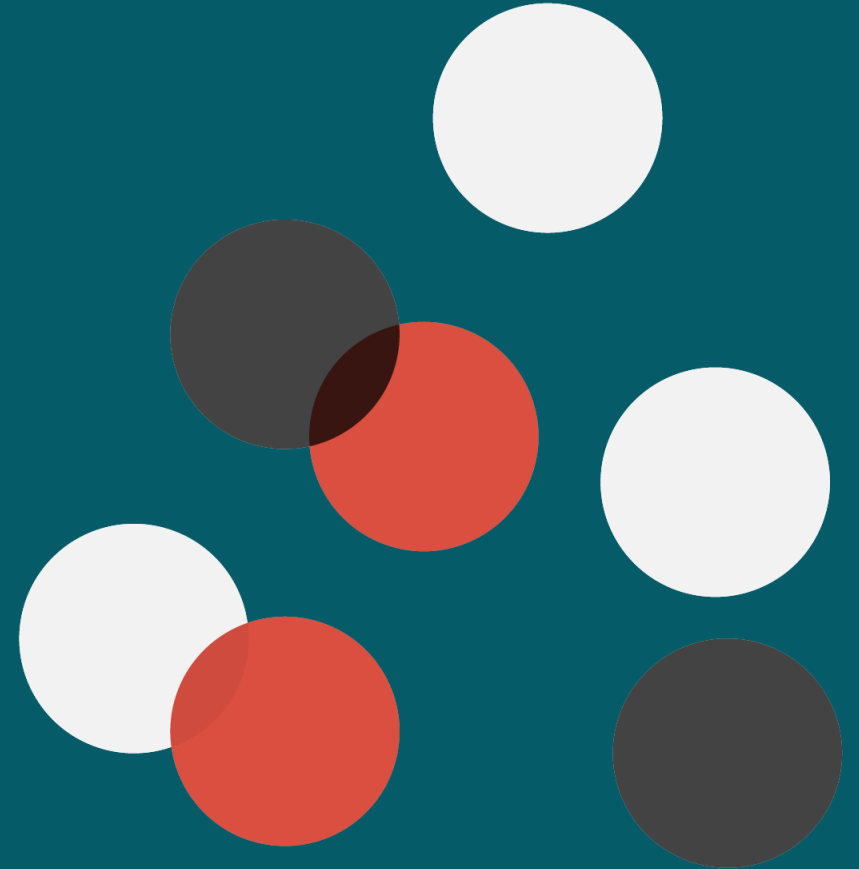






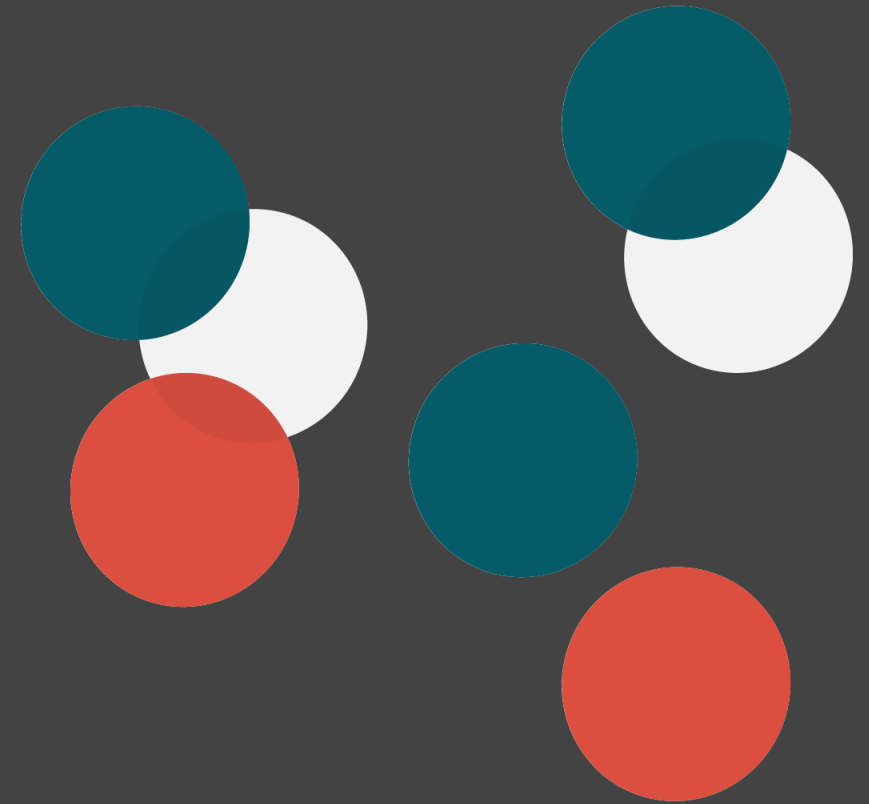
NASDAQ: FTSV  
**Forty Seven**

**Helping Patients Defeat Their Cancer**  
BOLD | HUMBLE | INQUISITIVE | PASSION TO ACTION





# Back-Up Slides





# Forty Seven Differentiated from Competition



Compound	5F9	CC-90002	TTI-621	TTI-622	ALX148	SRF231	TG-1801 <i>Previously NI-1701</i>	IBI-188	Ti-061	AO-176
Molecule	mAb	mAb	WT SIRPα fusion protein	WT SIRPα fusion protein	High affinity SIRPα fusion protein	mAb	Bi-specific Ab CD47/CD19	mAb	mAb	mAb
Class	IgG4	IgG4	IgG1	IgG4	inactive Fc	IgG4	IgG1	IgG4	IgG4	IgG2
Clinical Start Date	August 2014 first-in-clinic	March 2015	January 2016	May 2018	February 2017	March 2018	--	--	March 2017	--
Study Stage	Phase 2	Phase 1b	Phase 1a/b	Phase 1a/b	Phase 1b	Phase 1	Preclinical*	IND Approved (US & China)	Phase 1a/b Prematurely ended <sup>‡</sup>	Preclinical
Clinical Trials	6	1	2	1	1	1	--	--	--	--
Partner(s)	Genentech, Merck KGaA, Lilly	N/A	N/A	N/A	N/A	N/A	TG Therapeutics	N/A	N/A	N/A



- Most advanced program
  - First-in-clinic with initial trial started in August 2014
  - 6 trials ongoing with >290 patients dosed for up to 2 years
  - 3 pharma collaborations
  - Comprehensive 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<sup>1</sup>
- Proprietary dosing regimen
  - Mitigates transient anemia and enables high maintenance dose levels

\* Formerly Alexo Therapeutics  
 † Formerly Tioma, formerly Vasculox  
 ‡ Prematurely ended 8/2/17, EudraCT  
 • Expected to begin Ph1 in late 2018/early 2019  
<sup>1</sup> Davies and Sutton, Immunology Reviews, 2015



# Poster Presentations at the American Society of Hematology (ASH) Annual Meeting, December 2018

## RBC-Specific CD47 Pruning Confers Protection and Underlies the Transient Anemia in Patients Treated with Anti-CD47 Antibody 5F9

- 5F9 priming dose not only triggered clearance of a subset of aged RBCs, but also resulted in a near complete loss of CD47 on RBCs
- CD47 loss only occurred on RBCs but not WBCs and AML cancer cells
- Similar phenomenon exhibited in mouse models
- CD47 pruning is Fc-independent
- Provides fundamental insight into the mechanism underlying how anti-CD47 Abs are tolerated without impairing therapeutic efficacy
- Loss of CD47 on RBCs after the priming dose suggests that the potential risk of CD47 Ab-mediated RBC agglutination reduced during maintenance dosing

*\*Abstract number 2327 - ASH Annual Meeting, December 2018*

## Combination Treatment with 5F9 and Azacitidine Enhances Phagocytic Elimination of Acute Myeloid Leukemia

- Azacitidine can increase the “eat me” signal calreticulin on AML cancer cells
- Combination of 5F9 and azacitidine enhances phagocytic clearance of AML cells by human macrophages in vitro
- Combination of 5F9 and azacitidine enhances phagocytic clearance of AML cells in vivo and prolongs survival compared to single agent treatment
- A clinical trial with this combination in patients with AML is currently ongoing (NCT03248479)

*\* Abstract number 2729 - ASH Annual Meeting, December 2018*