As confidentially submitted to the U.S. Securities and Exchange Commission on May 14, 2018

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

FORTY SEVEN, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**2834**	**47-4065674**
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

Forty Seven, Inc.
1490 O'Brien Drive, Suite A
Menlo Park, California 94025
(650) 352-4150
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Mark A. McCamish, M.D., Ph.D.
President and Chief Executive Officer
Forty Seven, Inc.
1490 O'Brien Drive, Suite A
Menlo Park, California 94025
(650) 352-4150
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Eric C. Jensen
John T. McKenna
Ryan M. Spiers
Cooley LLP
3175 Hanover Street
Palo Alto, California 94304
(650) 843-5000

Bruce K. Dallas
Sarah K. Solum
Davis Polk & Wardwell LLP
1600 El Camino Real
Menlo Park, California 94025
(650) 752-2000

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box: ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐
		Emerging growth company	☑

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☑

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities being Registered	**Proposed Maximum Aggregate Offering Price(1)(2)**	**Amount of Registration Fee**
Common stock, par value $0.0001 per share	$	$

(1) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Includes the aggregate offering price of additional shares that the underwriters have the option to purchase, if any.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject To Completion)
Issued , 2018

Shares

COMMON STOCK

Forty Seven, Inc. is offering shares of its common stock. This is our initial public offering and no public market currently exists for our shares of common stock. We anticipate that the initial public offering price will be between $ and $ per share.

We intend to apply for listing of our common stock on the Nasdaq Global Market under the symbol "FTSV."

We are an "emerging growth company" as defined under the federal securities laws. Investing in our common stock involves risks. See "Risk Factors" beginning on page 11.

PRICE $ A SHARE

	Price to Public	***Underwriting Discounts and Commissions(1)***	***Proceeds to Forty Seven, Inc.***
Per share	*$*	*$*	*$*
Total	*$*	*$*	*$*

(1) See "Underwriters" for a description of the compensation payable to the underwriters.

We have granted the underwriters an option to purchase up to an additional shares of common stock at the initial public offering price less underwriting discounts and commissions to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock to purchasers on , 2018.

MORGAN STANLEY *CREDIT SUISSE*

CANACCORD GENUITY

BTIG *OPPENHEIMER & CO.*

, 2018

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Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. Neither we, nor any of the underwriters, take responsibility for, or can provide any assurance as to the reliability of, any information that others may give you. We and the underwriters are not offering to sell, or seeking offers to buy, shares of our common stock in any jurisdiction where such offer or sale is not permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Persons in jurisdictions outside the United States who come into possession of this prospectus and any applicable free writing prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus and any applicable free writing prospectus applicable to such jurisdictions.

Until , 2018 (25 days after the date of this prospectus), all dealers that buy, sell, or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus. This summary is not complete and does not contain all of the information you should consider before investing in our common stock. You should read the entire prospectus carefully, especially the risks of investing in our common stock discussed under the heading "Risk Factors," and our financial statements and related notes included elsewhere in this prospectus. Unless the context otherwise requires, the terms "Forty Seven," "company," "our," "us," and "we" in this prospectus refer to Forty Seven, Inc.

FORTY SEVEN, INC.

Overview

We are a clinical-stage immuno-oncology company focused on developing novel checkpoint therapies to activate macrophages in the fight against cancer. We founded Forty Seven based on the insight that blocking CD47, a key signaling molecule that is overexpressed on cancer cells, renders tumors susceptible to macrophages. By harnessing macrophages, we believe that our lead product candidate, 5F9, dosed as a monotherapy or in combination with marketed cancer therapies, can transform the treatment of cancer. 5F9 has demonstrated promising activity in five Phase 1b/2 clinical trials in which we have treated over 190 relapsed or refractory cancer patients with solid or hematologic tumors. We hold worldwide rights to all of our product candidates.

We focus our efforts on targeting the CD47 pathway as a way to engage macrophages in fighting tumors. Macrophages function as first responders, swallowing foreign and abnormal cells, including cancer cells, and mobilizing other components of the immune system including T cells and antibodies. Cancer cells use CD47, a "don't eat me" signal, in order to evade detection by the immune system and subsequent destruction by macrophages. Overexpression of CD47 is common to nearly all types of tumors and is also correlated with poor prognosis in multiple cancers including acute myelogenous leukemia, or AML, colorectal cancer, or CRC, gastric cancer, lung cancer, Non-Hodgkin's lymphoma, or NHL, and ovarian cancer. Despite the central role of macrophages as cell-eating scavengers and first responders, the pharmaceutical industry is only beginning to bring this key group of cells into the fight against cancer.

Our company was founded by leading scientists at Stanford University who uncovered the fundamental role of CD47 in cancer evasion. Preclinical work performed in the laboratory of our co-founder, Irv Weissman, at Stanford University demonstrated that:

- Blocking the CD47 "don't eat me" signaling pathway leads to elimination of many types of tumors and increased survival;
- Boosting an "eat me" signal found on cancer cells using therapeutic antibodies results in a synergistic effect with blocking CD47; and
- Macrophages digest cancer cells in a process called phagocytosis and present tumor-specific antigens that can activate T cells against the cancer, thus creating the potential for synergy with T cell checkpoint inhibitors.

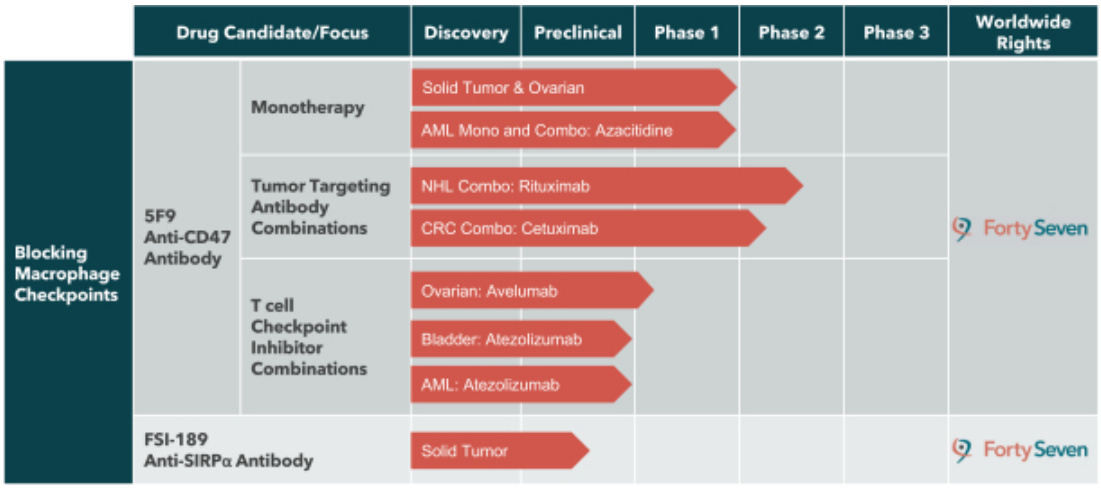
Our lead product candidate, 5F9, is a humanized IgG4 subclass monoclonal antibody against CD47 that is designed to interfere with recognition of CD47 by the SIRPa receptor on macrophages, thus blocking the "don't eat me" signal. The design of 5F9, combined with our proprietary dosing regimen, overcomes the toxicity limitations of previously tested anti-CD47 therapies developed by others. Across all study populations, 5F9 has been well tolerated with no maximum tolerated dose, or MTD, observed in any study despite dosing up to 45 mg/kg. The most common treatment-associated effects observed to date were the expected CD47-mechanism-

based effects on red blood cells, which led to a temporary and reversible anemia. Other reported treatment-related adverse events include infusion reactions, headache, fatigue, chills, fever and nausea. The majority of these adverse events were mild to moderate in severity and were generally easily managed. See "Business—Our Lead Product Candidate, 5F9—Safety Profile of 5F9."

To date, there are no approved therapies that target the CD47 checkpoint of the innate immune system. The targeting of CD47 to make cancer cells susceptible to macrophages, a component of the innate immune system, is analogous to the approach that has been applied with checkpoint inhibitors and T cells, a component of the adaptive immune system. In less than five years on the market, T cell checkpoint inhibitors have become frontline therapies for certain cancers and we estimate that they generated over $9 billion in sales in 2017. Despite the success of T cell checkpoint inhibitors, these therapies have been shown to be effective only in a subset of tumors, highlighting the need for additional therapies. Similar to the way cancer cells overexpress programmed death-ligand 1, or PD-L1, to avoid attack by T cells, cancer cells overexpress CD47 as a way to avoid destruction by macrophages. We believe targeting CD47 represents a compelling and analogous approach.

Our Development Pipeline

As summarized in the following figure, our clinical trials are investigating three types of CD47 therapy: as a monotherapy, in combination with therapeutic antibodies and in combination with T cell checkpoint inhibitors, in a wide variety of tumors, including both solid and hematological cancers. We have treated over 190 relapsed or refractory cancer patients with 5F9 both as a monotherapy and in combination with therapeutic antibodies such as rituximab and cetuximab. While the primary goal of our trials has been to demonstrate safety, we have also observed early signs of clinical activity in multiple tumor types. These signs include patients with partial and complete responses, as well as patients with "stable disease." We use standard clinical assessment criteria to evaluate the growth or reduction in existing tumor size, within set parameters, as well as growth of new tumors and metabolic activity. Broadly stated, "stable disease" indicates a growth or reduction in tumor size that is insufficient to meet the definitions of either progressive disease or partial or complete response. In contrast, patients with partial or complete responses have substantial reductions in tumor size.



5F9 Monotherapy

In our ongoing trials, 5F9 treatment has demonstrated biological responses and multiple cases of stable disease in Phase 1 as a monotherapy for patients with refractory AML. Reductions in the number of blast cells in patient bone marrow samples have been observed in 6 of the 14 patients (43%) in cohorts receiving 10 mg/kg or higher doses of 5F9, as of February 2018. One of these patients had prolonged stable disease for 11.8 months on study before progressing, which is more than double the average life expectancy for this refractory patient population. In biologic responders, we confirmed the presence of macrophages in tumor tissues and we observed that other components of the immune system, including T cells, had been recruited. We have received orphan drug designation from U.S. and European regulatory authorities for AML.

We are also investigating 5F9 as a monotherapy in ovarian cancer and other solid tumors. In a Phase 1 trial of 5F9, we observed confirmed partial responses in 2 out of 9 evaluable patients in a cohort with ovarian cancer receiving either 20 mg/kg or 30 mg/kg of 5F9, as of February 2018. Both were heavily pre-treated patients failing seven or more previous treatment regimens. One of these patients had a durable partial response of more than six months in duration. We continue to investigate the potential of 5F9 in an expanded cohort of more than 15 patients with ovarian cancer.

5F9 in Combination with Therapeutic Cancer Antibodies

In addition to continuing our trials using 5F9 as a monotherapy, we are also conducting multiple trials of 5F9 in combination with therapeutic cancer antibodies in order to test the synergistic potency of these combinations. We believe that we can enhance the effect of 5F9 on cancer by using therapeutic antibodies that bind cancer cells to present an “eat me” signal to macrophages. Hence, we are combining 5F9 with cancer-cell-binding antibodies such as rituximab and cetuximab. Based on our preclinical research and on publications by academic groups, we believe that this combination of an “eat me” signal by these antibodies and the blocking of a “don’t eat me” signal by 5F9 could be highly effective.

Our most advanced ongoing clinical trial is an open-label, multi-site Phase 1b/2 combination trial using 5F9 and rituximab in patients with relapsed and refractory NHL. As of February 2018, we have obtained clinical response data from 22 patients receiving 10 mg/kg, 20 mg/kg or 30 mg/kg of 5F9. Progression of the disease was controlled in 14 patients (64%), and 11 patients (50%) displayed an objective response. Six patients (27%) were reported to have a complete response and 5 patients (23%) were reported to have partial responses. Importantly, the rate of clinical response increased with the 5F9 dosage. Clinical activity was observed in both diffuse large B cell lymphoma, or DLBCL, and follicular lymphoma, or FL, patients. Clinical activity in these patients is notable because they all entered the trial after failing multiple lines of previously approved therapies, including rituximab. In April 2018, the FDA granted Fast Track designations to 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL.

Our Phase 1b/2 combination clinical trial with cetuximab in patients with advanced relapsed or refractory solid tumors, including CRC, as of February 2018 had enrolled 28 patients at multiple sites in the United States. Data from the 10 mg/kg, 20 mg/kg and 30 mg/kg cohorts of the Phase 1b portion of the trial showed that of the 17 CRC patients, 2 (12%) had a partial response and 9 (53%) had stable disease at eight weeks. Importantly, at the time of data cutoff in February 2018, the initial responding patient had maintained a durable response over five months that was ongoing.

Planned Trials: 5F9 Combinations with Checkpoint Inhibitors

We believe there is a strong rationale to combine 5F9 and T cell checkpoint inhibitors and we plan to initiate combination clinical trials in both solid and hematological tumors. 5F9 induces a potent anti-tumor T cell response by enabling macrophages to ingest cancer cells and present antigens derived from these cancer cells to T cells.

Thus, we believe the combination of a T cell checkpoint inhibitor with 5F9 is likely to further enhance an anti-tumor T cell response and to further mobilize both the innate and adaptive immune systems to eliminate cancer.

In early 2018, we announced collaborations with two pharmaceutical industry partners combining 5F9 with PD-L1 checkpoint inhibitors, while retaining full economic rights to our products. We are collaborating with Merck KGaA on the combination of 5F9 with BAVENCIO (avelumab) in ovarian cancer patients; and Genentech, Inc., a member of the Roche Group, on the combination of 5F9 and TECENTRIQ (atezolizumab) in patients with bladder cancer and in patients with AML.

Our Team

Our company was founded by leading scientists at Stanford University, including our co-founder, Irv Weissman, who uncovered the fundamental role of CD47 in immune regulation and applied these findings to the field of immuno-oncology. We have assembled a team of executives with broad industry experience in biologics and other therapeutics, as well as strong academic and clinical backgrounds. Our management team has worked for pharmaceutical companies such as Abbott Laboratories, Amgen, Inc., Genentech, Gilead Sciences, Inc., Janssen Global Services, LLC, PDL Biopharma, Inc. and Sandoz Inc. We have funded our operations to date primarily from the issuance and sale of our preferred stock to investors, including Lightspeed Venture Partners, Sutter Hill Ventures, Clarus, GV and Wellington Management Company, and from the receipt of government and private grants.

Our Strategy

Our strategy includes the following components:

- ***Maintain a focus on our core mission of helping patients defeat their cancer.*** By focusing on patients first, we believe we can realize the full potential of our therapies. Our initial efforts are directed at patients with high unmet medical needs, such as those diagnosed with AML, CRC, NHL or ovarian cancer. We believe there are patients with many other types of cancers that our product candidates can help.
- ***Maximize the therapeutic and commercial potential of 5F9 by exploring its treatment of both solid and hematological tumors.*** Based on our understanding of the CD47 SIRPa pathway and data from preclinical animal models, we believe 5F9 has the potential to benefit patients in a broad range of tumor types and in combination with other approved oncology therapeutics. We are currently evaluating 5F9 in five clinical trials and by the end of 2018, we expect to have seven clinical trials underway. These trials will read out in 2018 and 2019 and based on these data we expect to initiate additional trials with 5F9 to support regulatory approval and to explore the use of 5F9 in multiple cancer indications.
- ***Invest early to secure a clinical and commercial supply of 5F9 to mitigate risk and ensure a timely regulatory approval.*** Although 5F9 utilizes standard antibody manufacturing processes, we recognize that any regulatory approval requires experience and expertise in the commercial manufacturing of 5F9. We have completed strategic manufacturing agreements with Lonza Sales AG and Lonza Biologics Tuas Pte Ltd, or collectively, Lonza, a global leader in biologics manufacturing. The multi-year arrangements help ensure sufficient clinical material for our existing trials and provides a path to generate the required manufacturing information that is part of a biologics license application, or BLA, submission and initial commercial supplies.
- ***Pursue collaborative relationships and in-licensing opportunities to help advance and expand our product candidate portfolio.*** In addition to our internal drug discovery and development efforts, we plan to identify and pursue strategic collaborative relationships, partnerships and in-licensing

opportunities to enhance the development of our current programs and access additional novel product candidates. For example, in January 2018 we announced clinical collaborations with both Merck KGaA and Genentech to explore the utility of 5F9 in combination with approved checkpoint inhibitors.

- ***Prepare for an active role in commercialization in the United States while considering opportunities to engage with partners to access commercialization capabilities outside the United States.*** We have worldwide rights to 5F9. If 5F9 receives marketing approval in the United States, we intend to commercialize it with our own focused, specialty sales and marketing organization. We may explore partnering with a third party to commercialize and market 5F9 in certain geographies.
- ***Leverage our knowledge and expertise in immune system and cancer biology to develop a pipeline of novel cancer therapeutics.*** We intend to utilize CD47 and its associated immune activation pathways to their fullest potential to help patients defeat their cancer. This includes the development of our existing programs and the pursuit of new programs in the future.

Risks Associated with Our Business

Our business is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this prospectus summary. These risks include, among others, the following:

- We have incurred significant operating losses since our inception and anticipate that we will continue to incur substantial operating losses for the foreseeable future. We have not yet generated any revenue and had an accumulated deficit of $69.4 million as of December 31, 2017.
- Even if this offering is successful, we will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or terminate our product development programs or commercialization efforts.
- We depend primarily on the success of our lead product candidate, 5F9, which is in clinical development and which has not completed a pivotal trial, and we may not be successful in any future efforts to identify and develop additional product candidates.
- Clinical trials of our product candidates will be costly and time consuming, and if they fail to demonstrate safety and efficacy to the satisfaction of the FDA or other regulatory authorities, we will be unable to commercialize our product candidates.
- Failures or delays in the commencement or completion of our planned clinical trials could result in increased costs to us and could delay, prevent or limit our ability to generate revenue and continue our business.
- If serious adverse events or unexpected characteristics of our product candidates are identified during development, we may need to abandon or limit our development of some or all of our product candidates.
- If we experience delays or difficulties in the enrollment of patients in our clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.
- If we are unable to conduct our business without infringing, misappropriating or otherwise violating the intellectual property rights of third parties, we may not be able to commercialize our product candidates.
- If we are unable to obtain sufficient intellectual property protection for our product candidates and related intellectual property, or if the scope of such intellectual property protection is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our product candidates or our business may be harmed.

- Healthcare policy and regulatory oversight in the United States and internationally are subject to rapid change, and if we are unable to respond, our business may be harmed.
- We face substantial competition from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide.

If we are unable to adequately address these and other risks we face, our business, financial condition, operating results and prospects may be adversely affected.

In addition, we are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, and therefore we intend to take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We may take advantage of these exemptions for up to five years or until we are no longer an "emerging growth company," whichever is earlier. In addition, the JOBS Act provides that an "emerging growth company" can delay adopting new or revised accounting standards until those standards apply to private companies. We have not elected to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not "emerging growth companies."

Corporate Information

We were incorporated in Delaware in 2014 as CD47 Sciences, Inc. Our principal executive offices are located at 1490 O'Brien Drive, Suite A, Menlo Park, California 94025, and our telephone number is (650) 352-4150.

Our website address is www.fortyseveninc.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

"Forty Seven," the Forty Seven logo and other trademarks or service marks of Forty Seven appearing in this prospectus are our property. This prospectus contains additional trade names, trademarks, and service marks of other companies, which are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

THE OFFERING

Common stock offered by us	shares
Over-allotment option	shares
Common stock to be outstanding after this offering	shares
Use of proceeds	We estimate that the net proceeds from the sale of shares of our common stock that we are selling in this offering will be approximately $ million (or approximately $ million if the underwriters' over-allotment option is exercised in full), based upon an assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to conduct our clinical trials, to fund continued research and development of 5F9 in several applications, to fund other research and development activities, and for working capital and other general corporate purposes. We may also use a portion of the net proceeds to make acquisitions or investments, although we have no commitments or agreements to enter into such acquisitions or investments. See the section titled "Use of Proceeds" for additional information.
Risk factors	See "Risk Factors" and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Proposed Nasdaq trading symbol	"FTSV"

The number of shares of common stock that will be outstanding after this offering is based on 177,995,168 shares of common stock (including preferred stock on an as-converted basis) outstanding as of December 31, 2017, and excludes:

- 16,294,994 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2017 with a weighted-average exercise price of $0.58 per share;
- 1,774,598 additional shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan as of December 31, 2017, which shares will cease to be available for issuance at the time our 2018 Equity Incentive Plan becomes effective in connection with this offering;
- shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan; and

- shares of common stock reserved for issuance under our 2018 Employee Stock Purchase Plan, which will become effective upon the execution of the underwriting agreement for this offering as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

In addition, unless we specifically state otherwise, all information in this prospectus assumes:

- that our amended and restated certificate of incorporation, which we will file in connection with the closing of this offering, and our amended and restated bylaws adopted in connection with this offering are effective;
- the conversion of all 125,673,575 outstanding shares of our preferred stock into an equal number of shares of common stock immediately upon the closing of this offering;
- no exercise of the outstanding options described above; and
- no exercise of the underwriters' over-allotment option.

SUMMARY FINANCIAL DATA

We have derived the summary statement of operations data for 2016 and 2017 and the summary balance sheet data as of December 31, 2017 from our audited financial statements included elsewhere in this prospectus. You should read the following summary financial data in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any other period in the future.

	Year Ended December 31,	
	2016	2017
	(In thousands, except share and per share data)	
Statement of Operations Data:		
Operating expenses:		
Research and development	$ 14,464	$ 37,174
General and administrative	5,153	8,130
Total operating expenses	19,617	45,304
Loss from operations	(19,617)	(45,304)
Interest and other income, net	78	406
Net loss	$ (19,539)	$ (44,898)
Net loss per share, basic and diluted(1)	$ (0.41)	$ (0.90)
Shares used in computing net loss per share, basic and diluted(1)	48,028,336	50,131,995
Pro forma net loss per share, basic and diluted (unaudited)(1)		$
Shares used in computing pro forma net loss per share, basic and diluted (unaudited)(1)		

(1) See the statements of operations and Note 10 to our financial statements for further details on the calculation of net loss per share and the unaudited pro forma net loss per share.

	As of December 31, 2017		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(In thousands)	
Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 88,111	$	$
Total assets	95,465		
Working capital	81,289		
Total liabilities	12,003		
Accumulated deficit	(69,399)		
Total stockholders' equity	83,462		

(1) The pro forma balance sheet data gives effect to (i) the conversion of all outstanding shares of preferred stock into 125,673,575 shares of common stock immediately upon the closing of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation that will be in effect upon the closing of this offering.

(2) The pro forma as adjusted balance sheet data further reflects our receipt of net proceeds from the sale of shares of common stock at the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

(3) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, respectively, the amount of cash, cash equivalents and short-term investments, working capital, total assets and total stockholders' equity by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease the amount of cash, cash equivalents and short-term investments, working capital, total assets and stockholders' equity by approximately $ million, assuming the assumed initial public offering price per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions. The pro forma as adjusted information is illustrative only, and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus, before deciding to invest in our common stock. If any of the following risks actually occur, it could harm our business, prospects, operating results and financial condition. Unless otherwise indicated, references to our business being harmed in these risk factors will include harm to our business, reputation, financial condition, results of operations, revenue and future prospects. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to Our Financial Position and Need for Additional Capital

We have a limited operating history and have incurred significant losses since inception and we anticipate that we may continue to incur losses for the foreseeable future and may never achieve or maintain profitability.

We are an immuno-oncology company with a limited operating history. Since inception in 2014, we have not generated any revenue and have incurred significant operating losses. Our net loss was $19.5 million and $44.9 million for 2016 and 2017, respectively. As of December 31, 2017, we had an accumulated deficit of $69.4 million. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. Since inception, we have devoted substantially all of our efforts to research and preclinical and clinical development of our product candidates, as well as to building out our management team and infrastructure. It could be several years, if ever, before we have a commercialized drug. The net losses we incur may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially if, and as, we:

- continue to advance our research and clinical and preclinical development of our product candidates;
- scale up manufacturing to provide adequate drug substance for clinical trials and commercialization;
- initiate further clinical trials for our product candidates;
- seek to identify additional product candidates;
- seek marketing approvals for our product candidates that successfully complete clinical trials, if any;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, expand, protect and enforce our intellectual property portfolio and obtain licenses to third-party intellectual property;
- attract, hire and retain additional administrative, clinical, regulatory and scientific personnel; and
- incur additional legal, accounting and other expenses in operating our business, including the additional costs associated with operating as a public company.

In addition, because of the numerous risks and uncertainties associated with pharmaceutical products and development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Our expenses could increase and profitability could be further delayed if we decide to or are required by the U.S. Food and Drug Administration, or FDA, or other regulatory authorities such as the European Medicines Agency, or EMA, or the U.K. Medicines & Healthcare Products Regulatory Agency, or MHRA, to perform studies or trials in addition to those currently expected, or if there are any delays in the development, or in the completion of any planned or future preclinical studies or clinical trials of our current and future product candidates. Even if we complete the development and regulatory processes described above, we anticipate incurring significant costs associated with launching and commercializing our current and future product candidates.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

Even if this offering is successful, we will need substantial additional funding to pursue our business objectives. If we are unable to raise capital when needed or on terms favorable to us, we could be forced to delay, reduce or terminate our product development, other operations or commercialization efforts.

Identifying potential product candidates and conducting preclinical studies and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and begin selling any approved products. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue to develop our product candidates. Our expenses could increase beyond our current expectations if the FDA requires us to perform clinical trials and other studies in addition to those that we currently anticipate. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or terminate our research and development programs or future commercialization efforts.

As of December 31, 2017, we had cash, cash equivalents and short-term investments of $88.1 million. Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our cash and capital expenditure requirements through at least the next 12 months from the date of this offering. This estimate is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we expect. Changes may occur beyond our control that would cause us to consume our available capital before that time, including changes in and progress of our development activities and changes in regulation. Our future capital requirements will depend on many factors, including:

- the scope, rate of progress, results and costs of drug discovery, preclinical development, laboratory testing and clinical trials for our product candidates;
- the number and development requirements of other product candidates that we may pursue, and other indications for our current product candidates that we may pursue;
- the costs, timing and outcome of regulatory review of our product candidates;
- the scope and costs of manufacturing development and commercial manufacturing activities;
- the cost associated with commercializing any approved product candidates;
- the cost and timing of developing our ability to establish sales and marketing capabilities, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights, defending intellectual property-related claims and obtaining licenses to third-party intellectual property;
- the timing and amount of milestone and royalty payments we are required to make under our license agreements;
- our ability to establish and maintain collaborations on favorable terms, if at all; and
- the extent to which we acquire or in-license other product candidates and technologies and associated intellectual property.

Even if this offering is successful, we will require additional capital to complete our planned clinical development programs for our current product candidates to obtain regulatory approval. Any additional capital

raising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our current and future product candidates, if approved.

In addition, we cannot guarantee that future financing will be available on a timely basis, in sufficient amounts or on terms acceptable to us, if at all. Moreover, the terms of any financing may adversely affect the holdings or the rights of our stockholders and the issuance of additional securities by us, whether equity or debt, or the market perception that such issuances are likely to occur, could cause the market price of our common stock to decline. If we are unable to obtain funding on a timely basis on acceptable terms, we may be required to delay, reduce or terminate one or more of our research and development programs or the commercialization of any product candidates that may be approved.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish proprietary rights.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, reduce or terminate our product development or future commercialization efforts or grant rights to third parties to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Risks Related to the Development of Our Product Candidates

We depend primarily on the success of our lead product candidate, 5F9, which is in clinical development and which has not completed a pivotal trial. If we do not obtain regulatory approval for and successfully commercialize our lead product candidate in one or more indications or we experience significant delays in doing so, we may never generate any revenue or become profitable.

We do not have any products that have received regulatory approval and may never be able to develop marketable product candidates. We expect that a substantial portion of our efforts and expenses over the next several years will be devoted to the development of our lead product candidate, 5F9, in our five ongoing clinical trials, including trials in monotherapy and in combination with anti-cancer antibodies such as rituximab and cetuximab. As a result, our business currently depends heavily on the successful development, regulatory approval and, if approved, commercialization of 5F9 in one or more of these indications. We cannot be certain that 5F9 will receive regulatory approval or will be successfully commercialized even if it receives regulatory approval. The research, testing, manufacturing, safety, efficacy, labeling, approval, sale, marketing and distribution of 5F9 is, and will remain, subject to comprehensive regulation by the FDA and similar foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any product candidate, we must demonstrate through preclinical studies and clinical trials that the product candidate is safe and effective for use in each target indication. Drug development is a long, expensive and uncertain process, and delay or failure can occur at any stage of any of our clinical trials. Failure to obtain regulatory approval for our product candidates in the United States will prevent us from commercializing and marketing our product candidates. The success of 5F9 and any other product candidates will depend on several additional factors, including:

- completing clinical trials that demonstrate their efficacy and safety;

- receiving marketing approvals from applicable regulatory authorities;
- completing any post-marketing studies required by applicable regulatory authorities;
- establishing commercial manufacturing capabilities;
- launching commercial sales, marketing and distribution operations;
- the prevalence and severity of adverse events experienced with our product candidates;
- acceptance of our product candidates by patients, the medical community and third-party payors;
- a continued acceptable safety profile following approval;
- obtaining and maintaining healthcare coverage and adequate reimbursement for our product candidates;
- competing effectively with other therapies, including with respect to the sales and marketing of our product candidates, if approved; and
- qualifying for, maintaining, enforcing and defending our intellectual property rights and claims and obtaining licenses to any third party intellectual property we deem necessary or desirable.

Many of these factors are beyond our control, including the time needed to adequately complete clinical testing, the regulatory submission process, potential threats to our intellectual property rights and changes in the competitive landscape. It is possible that none of our product candidates will ever obtain regulatory approval, even if we expend substantial time and resources seeking such approval. If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully complete clinical trials, obtain regulatory approval or, if approved, commercialize our product candidates, which would materially harm our business, financial condition and results of operations.

In addition, the clinical trial requirements of the FDA, the EMA, the MHRA and other regulatory agencies and the criteria these regulators may use to determine the safety and efficacy of a product candidate vary substantially according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates such as ours can be more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates.

Our product candidates are based on a novel technology, which makes it difficult to predict the time and cost of product candidate development.

We have concentrated our product research and development efforts on our novel therapeutic approach, and our future success depends on the successful development of our lead product candidate, 5F9, and other product candidates. There can be no assurance that any development problems we experience in the future related to our novel therapy will not cause significant delays or unanticipated costs, or that such development problems can be solved. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners, which may prevent us from completing our clinical trials or commercializing our product candidates on a timely or profitable basis, if at all.

Clinical trials are very expensive, time-consuming and difficult to design and implement, and involve uncertain outcomes. Furthermore, results of earlier preclinical studies and clinical trials may not be predictive of results of future preclinical studies or clinical trials.

The risk of failure for our product candidates is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive regulatory approval. To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate through extensive preclinical studies and clinical trials that our product candidates are safe and effective in humans for

use in each target indication. Clinical testing is expensive and can take many years to complete, and the outcome is inherently uncertain. Failure can occur at any time during the clinical trial process.

In addition, the results of preclinical studies and earlier clinical trials may not be predictive of the results of later-stage preclinical studies or clinical trials. The results generated to date in preclinical studies or clinical trials for our product candidates do not ensure that later preclinical studies or clinical trials will demonstrate similar results. We have limited clinical data for each of our product candidates. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical and earlier stage clinical trials. For example, the favorable results of our ongoing trial of 5F9 in tumor targeting antibody combinations with rituximab may not be predictive of similar results in subsequent trials. In later-stage clinical trials, we will likely be subject to more rigorous statistical analyses than in completed earlier stage clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in later-stage clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials, and we cannot be certain that we will not face similar setbacks. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in clinical trial procedures set forth in protocols, differences in the size and type of the patient populations, adherence to the dosing regimen and other clinical trial protocols, and the rate of dropout among clinical trial participants. If we fail to produce positive results in our planned preclinical studies or clinical trials of any of our product candidates, the development timeline and regulatory approval and commercialization prospects for our product candidates, and, correspondingly, our business and financial prospects, would be materially and adversely affected.

We may encounter substantial delays in our clinical trials or we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidate for its intended indications. Clinical trials are expensive, time-consuming and uncertain as to outcome. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of testing. Events that may prevent successful or timely completion of clinical development include:

- delays in reaching a consensus with regulatory authorities on trial design;
- delays in reaching agreement or failing to agree on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites;
- delays in opening sites and recruiting suitable patients to participate in our clinical trials;
- imposition of a clinical hold by regulatory authorities as a result of a serious adverse event, concerns with a class of product candidates or after an inspection of our clinical trial operations or trial sites;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- occurrence of serious adverse events associated with the product candidate that are viewed to outweigh its potential benefits; or
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols.

Any inability to successfully complete preclinical and clinical development could result in additional costs to us or impair our ability to generate revenue from future drug sales and regulatory and commercialization

milestones. In addition, if we make manufacturing or formulation changes to our product candidates, we may need to conduct additional testing to bridge our modified product candidate to earlier versions. Clinical trial delays could also shorten any periods during which we may have the exclusive right to commercialize our product candidates, if approved, or allow our competitors to bring comparable drugs to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business, financial condition, results of operations and prospects.

Additionally, if the results of our clinical trials are inconclusive or if there are safety concerns or serious adverse events associated with our product candidates, we may:

- be delayed in obtaining marketing approval, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing requirements;
- be required to perform additional clinical trials to support approval or be subject to additional post-marketing testing requirements;
- have regulatory authorities withdraw, or suspend, their approval of the drug or impose restrictions on its distribution in the form of a modified risk evaluation and mitigation strategy, or REMS;
- be subject to the addition of labeling statements, such as warnings or contraindications;
- be sued; or
- experience damage to our reputation.

Our drug development costs will also increase if we experience delays in testing or obtaining marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, need to be restructured or be completed on schedule, if at all.

Further, we, the FDA or an institutional review board may suspend our clinical trials at any time if it appears that we or our collaborators are failing to conduct a trial in accordance with regulatory requirements, including the FDA's current Good Clinical Practice, or GCP, regulations, that we are exposing participants to unacceptable health risks, or if the FDA finds deficiencies in our investigational new drug applications or the conduct of these trials. Therefore, we cannot predict with any certainty the schedule for commencement and completion of future clinical trials. If we experience delays in the commencement or completion of our clinical trials, or if we terminate a clinical trial prior to completion, the commercial prospects of our product candidates could be negatively impacted, and our ability to generate revenues from our product candidates may be delayed or eliminated entirely.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial therapies or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

If any of our product candidates receives marketing approval and we, or others, later discover that the drug is less effective than previously believed or causes undesirable side effects that were not previously identified, our ability to market the drug could be compromised.

Clinical trials of our product candidates are conducted in carefully defined subsets of patients who have agreed to enter into clinical trials. Consequently, it is possible that our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects. Other products focused on CD47 have had problems with toxicity. If one or more of our product candidates receives regulatory approval, and we, or others, later discover that they are less effective than previously believed, or cause undesirable side effects, a number of potentially significant negative consequences could result, including:

- withdrawal or limitation by regulatory authorities of approvals of such product;
- seizure of the product by regulatory authorities;
- recall of the product;
- restrictions on the marketing of the product or the manufacturing process for any component thereof;
- requirement by regulatory authorities of additional warnings on the label, such as a “black box” warning or contraindication;
- requirement that we implement a REMS or create a medication guide outlining the risks of such side effects for distribution to patients;
- commitment to expensive additional safety studies prior to approval or post-marketing studies required by regulatory authorities of such product;
- the product may become less competitive;
- initiation of regulatory investigations and government enforcement actions;
- initiation of legal action against us to hold us liable for harm caused to patients; and
- harm to our reputation and resulting harm to physician or patient acceptance of our products.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, financial condition and results of operations.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size and health of the patient population required for analysis of the trial’s primary endpoints;
- the proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;

- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will drop out of the trials before completion.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such clinical trial site. Moreover, because our product candidates represent a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies rather than enroll patients in any future clinical trial.

Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates.

We have received Fast Track designations for 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL, but such designations may not actually lead to a faster development or regulatory review or approval process.

In April 2018, the FDA granted Fast Track designations to 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL. If a drug is intended for the treatment of a serious condition and nonclinical or clinical data demonstrate the potential to address unmet medical need for such condition, a drug sponsor may apply for FDA Fast Track designation. Even though we received Fast Track designations for 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL, Fast Track designation does not ensure that we will receive marketing approval or that approval will be granted within any particular timeframe. We may not experience a faster development or regulatory review or approval process with Fast Track designation compared to conventional FDA procedures. In addition, the FDA may withdraw Fast Track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or at the commercial stage, and our product liability insurance may not cover all damages from such claims.

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing and use of pharmaceutical products. We currently have no products that have been approved for commercial sale. However, the current and future use of product candidates by us in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies or others selling such products. In addition, we have agreed to indemnify the licensors of the intellectual property related to our product candidates against certain intellectual property infringement claims. Any claims against us, or with respect to which we are obligated to provide indemnification, regardless of their merit, could be difficult and costly to defend or settle, and could compromise the market acceptance of our product candidates or any prospects for commercialization of our product candidates, if approved.

Although the clinical trial process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If any of our product candidates were to cause adverse side effects during clinical trials or after approval of the product candidate, we

may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates.

Although we maintain product liability insurance coverage, such insurance may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage each time we commence a clinical trial and if we successfully commercialize any product candidate. As the expense of insurance coverage is increasing, we may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Risks Related to Commercialization of Our Product Candidates

We have never commercialized a product candidate and we may lack the necessary expertise, personnel and resources to successfully commercialize any of our products that receive regulatory approval on our own or together with collaborators.

We have never commercialized a product candidate. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring the rights to our product candidates and undertaking preclinical studies and clinical trials of our product candidates. We currently have no sales force, marketing or distribution capabilities. To achieve commercial success of our product candidates, if any are approved, we will have to develop our own sales, marketing and supply capabilities or outsource these activities to a third party.

Factors that may affect our ability to commercialize our product candidates on our own include recruiting and retaining adequate numbers of effective sales and marketing personnel, obtaining access to or persuading adequate numbers of physicians to prescribe our product candidates and other unforeseen costs associated with creating an independent sales and marketing organization. Developing a sales and marketing organization requires significant investment, is time-consuming and could delay the launch of our product candidates. We may not be able to build an effective sales and marketing organization in the United States, the European Union or other key global markets. If we are unable to build our own distribution and marketing capabilities or to find suitable partners for the commercialization of our product candidates, we may have difficulties generating revenue from them.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical, specialty pharmaceutical and biotechnology companies among others. We compete in the segments of the pharmaceutical, biotechnology and other related markets that develop immunotherapies for the treatment of cancer. There are other companies working to develop immunotherapies for the treatment of cancer including divisions of large pharmaceutical and biotechnology companies of various sizes. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We are developing our initial product candidates for the treatment of cancer and currently none of these therapies are approved. There are already a variety of available drug therapies marketed for cancer and some of the currently approved drug therapies are branded and subject to patent protection, and others are available on a generic basis. Many of these approved drugs are well established therapies and are widely accepted by

physicians, patients and third-party payors. Insurers and other third-party payors may also encourage the use of generic products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic products. This may make it difficult for us to achieve our business strategy of using our product candidates in combination with existing therapies or replacing existing therapies with our product candidates.

Competition may further increase as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. We are aware that Celgene Corporation, Trillium Therapeutics Inc., Alexo Therapeutics Ltd, Arch Therapeutics, Inc., Surface Oncology, Inc., Novimmune SA, OSE Immunotherapeutics SA, Aurigene Discovery Technologies Ltd and others are developing drugs targeting the CD47 pathway that may have utility for the treatment of indications that we are targeting. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, products that are more effective or less costly than any product candidate that we may develop.

Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, discovering, developing, receiving FDA approval for or commercializing drugs before we do, which would have an adverse impact on our business and results of operations.

The availability of our competitors' products could limit the demand and the price we are able to charge for any product candidate we commercialize, if any. The inability to compete with existing or subsequently introduced drugs would harm our business, financial condition and results of operations.

Even if any of our product candidates receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If 5F9 and any other future product candidates receive marketing approval, whether as a single agent or in combination with other therapies, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. For example, current approved immunotherapies, and other cancer treatments like chemotherapy and radiation therapy, are well established in the medical community, and doctors may continue to rely on these therapies. If 5F9 and any other future product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of 5F9 and any future products, if approved for commercial sale, will depend on a number of factors, including:

- efficacy and potential advantages compared to alternative treatments;
- the ability to offer our products, if approved, for sale at competitive prices;
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- sufficient third-party coverage or reimbursement, including of combination therapies;
- adoption of a companion diagnostic and/or complementary diagnostic; and
- the prevalence and severity of any side effects.

The successful commercialization of certain of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage, reimbursement levels and pricing

policies. Failure to obtain or maintain adequate coverage and reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate revenue.

The availability and adequacy of coverage and reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford products such as our product candidates, if approved. Our ability to achieve acceptable levels of coverage and reimbursement for products by governmental authorities, private health insurers and other organizations will have an effect on our ability to successfully commercialize our product candidates and attract additional collaboration partners to invest in the development of our product candidates. Coverage under certain government programs, such as Medicare, Medicaid and TRICARE, may not be available for certain of our product candidates. Assuming we obtain coverage for a given product by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. We cannot be sure that coverage and reimbursement in the United States, the European Union or elsewhere will be available for any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical products and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs when an equivalent generic drug, biosimilar or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates and other therapies as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing drugs may limit the amount we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in product development. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates, and may not be able to obtain a satisfactory financial return on products that we may develop.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse health care providers who use such therapies. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

Obtaining and maintaining reimbursement status is time-consuming and costly. No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases at short notice, and we believe that changes in these rules and regulations are likely.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations, and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new

products. The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care services to contain or reduce costs of health care may adversely affect:

- the demand for any products for which we may obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain coverage and reimbursement approval for a product;
- our ability to generate revenues and achieve or maintain profitability; and
- the level of taxes that we are required to pay.

Even if we receive marketing approval for any of our product candidates, we may not achieve market acceptance, which would limit the revenue that we can generate from sales of any of our approved product candidates.

Even if the FDA approves the marketing of any product candidates that we develop, physicians, patients, third-party payors or the medical community may not accept or use them. Efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may not be successful. Market acceptance of 5F9 and our other product candidates, if any are approved, will depend on a number of factors, including, among others:

- the ability of 5F9 and our other product candidates to treat cancer, as compared with other available drugs, treatments or therapies;
- the prevalence and severity of any adverse side effects associated with 5F9 and our other product candidates;
- limitations or warnings contained in the labeling approved for 5F9 or our other product candidates by the FDA;
- availability of alternative treatments;
- the size of the target patient population, and the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support and timing of market introduction of competitive products;
- publicity for our product candidates and competing products and treatments;
- pricing and cost effectiveness;
- the effectiveness of our sales and marketing strategies;
- our ability to increase awareness of our product candidates through marketing efforts;
- our ability to obtain sufficient third-party coverage or reimbursement;
- the willingness of patients to pay out-of-pocket in the absence of third-party coverage; and
- the likelihood that the FDA may impose additional requirements that limit the promotion, advertising, distribution or sales of our product candidates.

The market acceptance of our product candidates also will depend in part on the market acceptance of other immunotherapies for the treatment of cancer. While a number of other cancer immunotherapies have received regulatory approval and are being commercialized, our approach to targeting the CD47 pathway is novel. Adverse events in clinical trials for our product candidates or in clinical trials of others developing similar products and the resulting publicity, as well as any other adverse events in the field of immuno-oncology that may occur in the future, could result in a decrease in demand for 5F9 or any other product candidate that we may develop. If public perception is influenced by claims that the use of cancer immunotherapies is unsafe, whether related to our therapies or those of our competitors, our products may not be accepted by the general public or the medical community. Future adverse events in immuno-oncology or the biopharmaceutical industry generally could also result in greater governmental regulation and stricter labeling requirements.

If any of our product candidates is approved but does not achieve an adequate level of acceptance by patients, physicians and third-party payors, we may not generate sufficient revenue to become or remain profitable and our business may be harmed.

Even if we obtain regulatory approval for our product candidates, they will remain subject to ongoing regulatory oversight.

Even if we obtain regulatory approval for any of our product candidates, they will be subject to extensive and ongoing regulatory requirements for manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, sampling and record-keeping. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current good manufacturing practices, or cGMP, regulations and GCPs, for any clinical trials that we conduct post-approval, all of which may result in significant expense and limit our ability to commercialize such products. In addition, any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS as a condition of approval of our product candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability. Moreover, if there are changes in the application of legislation or regulatory policies, or if problems are discovered with a product or our manufacture of a product, or if we or one of our distributors, licensees or co-marketers fails to comply with regulatory requirements, the regulators could take various actions. These include:

- issuing warning or untitled letters;
- seeking an injunction or imposing civil or criminal penalties or monetary fines;
- suspension or imposition of restrictions on operations, including product manufacturing;
- seizure or detention of products, refusal to permit the import or export of products, or request that we initiate a product recall;
- suspension or withdrawal of our marketing authorizations;
- suspension of any ongoing clinical trials;
- refusal to approve pending applications or supplements to applications submitted by us; or
- requiring us to conduct additional clinical trials, change our product labeling or submit additional applications for marketing authorization.

If any of these events occurs, our ability to sell such product may be impaired, and we may incur substantial additional expense to comply with regulatory requirements, which could adversely affect our business, financial condition and results of operations.

If any of our product candidates are approved for marketing and commercialization and we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates, we will be unable to successfully commercialize our product candidates if and when they are approved.

We have no sales, marketing or distribution capabilities or experience. To achieve commercial success for any approved product for which we retain sales and marketing responsibilities, we must either develop a sales and marketing organization, which would be expensive and time consuming, or outsource these functions to other third parties. In the future, we may choose to build a focused sales and marketing infrastructure to sell, or participate in sales activities with our collaborators for, some of our product candidates if and when they are approved.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our product candidates on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future product candidates;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues or the profitability of these product revenues to us are likely to be lower than if we were to market and sell any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are favorable to us. In entering into third-party marketing or distribution arrangements, any revenue we receive will depend upon the efforts of the third parties and we cannot assure you that such third parties will establish adequate sales and distribution capabilities or devote the necessary resources and attention to sell and market our product candidates effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Risks Related to Our Dependence on Third Parties

We do not have our own manufacturing capabilities and will rely on third parties to produce clinical and commercial supplies of 5F9 and any future product candidate.

We have limited experience in drug formulation and manufacturing and do not own or operate, and we do not expect to own or operate, facilities for drug manufacturing, storage, distribution, or testing. We have entered into a development and manufacturing agreement with Lonza, pursuant to which we agreed to purchase 5F9. Lonza is currently our sole supplier of 5F9. If Lonza is unable to supply us with sufficient clinical and commercial grade quantities of 5F9, and we are unable to timely establish an alternate supply from one or more third-party contract manufacturers, we could experience delays in our development efforts as we locate and qualify new manufacturers. Under such circumstances, we may be required to receive drug substance for use on a purchase order basis, and as such, there can be no assurance that we actually receive sufficient quantities.

Further, our reliance on third-party manufacturers exposes us to risks beyond our control, including the risk of:

- inability to meet our drug specifications and quality requirements consistently;
- delay or inability to procure or expand sufficient manufacturing capacity;
- manufacturing and drug quality issues, including related to scale-up of manufacturing;
- costs and validation of new equipment and facilities required for additional scale-up;
- failure to comply with cGMP and similar foreign standards;
- inability to negotiate manufacturing agreements with third parties under commercially reasonable terms;
- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that is costly or damaging to us;
- reliance on a limited number of sources, and in some cases, single sources for drug components, such that if we are unable to secure a sufficient supply of these drug components, we will be unable to manufacture and sell 5F9 or any future product candidate in a timely fashion, in sufficient quantities or under acceptable terms;
- lack of qualified backup suppliers for those components that are currently purchased from a sole or single source supplier;
- operations of our third-party manufacturers or suppliers could be disrupted by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier or the issuance of a FDA Form 483 notice or warning letter;
- carrier disruptions or increased costs that are beyond our control; and
- failure to deliver our drugs under specified storage conditions and in a timely manner.

Some of these events could be the basis for FDA action, including injunction, recall, seizure, or total or partial suspension of production. In addition, our third-party manufacturers and suppliers are subject to FDA inspection from time to time. Failure by our third-party manufacturers and suppliers to pass such inspections and otherwise satisfactorily complete the FDA approval regimen with respect to our product candidate may result in regulatory actions such as the issuance of FDA Form 483 notices of observations, warning letters or injunctions or the loss of operating licenses. In addition, our third-party manufacturers and suppliers are subject to numerous environmental, health and safety laws and regulations, including those governing the handling, use, storage, treatment and disposal of waste products, and failure to comply with such laws and regulations could result in significant costs associated with civil or criminal fines and penalties for such third parties. Based on the severity of the regulatory action, our clinical or commercial supply of drug and packaging and other services could be interrupted or limited, which could harm our business.

In addition, our contract manufacturers are or may be engaged with other companies to supply and manufacture materials or products for such companies, which also exposes our suppliers and manufacturers to regulatory risks for the production of such materials and products. As a result, failure to meet the regulatory requirements for the production of those materials and products may also affect the regulatory clearance of a contract supplier’s or manufacturer’s facility. If the FDA or a comparable foreign regulatory agency does not approve these facilities for the supply or manufacture of our product candidates, or if it withdraws its approval in the future, we may need to find alternative supply or manufacturing facilities, which would negatively impact our ability to develop, obtain regulatory approval of or market our product candidates, if approved.

As we prepare for later-stage clinical trials and potential commercialization, we will need to take steps to increase the scale of production of our product candidates, which may include transferring production to new

third-party suppliers or manufacturers. In order to conduct larger or late-stage scale clinical trials for our product candidates and supply sufficient commercial quantities of the resulting drug product and its components, if that product candidate is approved for sale, our contract manufacturers and suppliers will need to produce our product candidates in larger quantities, more cost effectively and, in certain cases, at higher yields than they currently achieve. These third-party contractors may not be able to successfully increase the manufacturing capacity for any such product candidates in a timely or cost-effective manner or at all. Significant scale up of manufacturing may require additional processes, technologies and validation studies, which are costly, may not be successful and which the FDA and foreign regulatory authorities must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a product candidate itself or of a product candidate in combination with other components added during the manufacturing and packaging process, or during shipping and storage of the active pharmaceutical ingredients or the finished product. If our third-party contractors are unable to successfully scale up the manufacture of any of our product candidates in sufficient quality and quantity and at commercially reasonable prices, and we are unable to find one or more replacement suppliers or manufacturers capable of production at a substantially equivalent cost in substantially equivalent volumes and quality, and we are unable to successfully transfer the processes on a timely basis, the development of that product candidate and regulatory approval or commercial launch for any resulting products may be delayed, or there may be a shortage in supply, either of which could significantly harm our business, financial condition, operating results and prospects.

Any of these events could lead to clinical trial delays, failure to obtain regulatory approval or impact our ability to successfully commercialize any potential future product candidates.

We rely on third parties to conduct our preclinical studies and clinical trials and if these third parties perform in an unsatisfactory manner, our business could be substantially harmed.

We intend to conduct our future clinical trials using our own clinical resources while also leveraging expertise and assistance from CROs as appropriate. We do not currently have the ability to independently conduct large-scale clinical trials, such as a Phase 3 clinical trial, without outside assistance.

We have relied upon and plan to continue to rely upon medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct or assist us in conducting GCP-compliant clinical trials on our product candidates properly and on time, and may not currently have all of the necessary contractual relationships in place to do so. Once we have established contractual relationships with such third-party CROs, we will have only limited control over their actual performance of these activities.

We and our CROs and other vendors are required to comply with cGMP, GCP and good laboratory practices, or GLP, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Union and any comparable foreign regulatory authorities for all of our product candidates in preclinical and clinical development. Regulatory authorities enforce these regulations through periodic inspections of trial sponsors, principal investigators, clinical trial sites and other contractors. Although we rely on CROs to conduct any current or planned GLP-compliant preclinical studies and GCP-compliant clinical trials and have limited influence over their actual performance, we remain responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with its investigational plan and protocol and applicable laws and regulations, and our reliance on the CROs does not relieve us of our regulatory responsibilities. If we or any of our CROs or vendors fail to comply with applicable regulations, the data generated in our preclinical studies and clinical trials may be deemed unreliable and the FDA, EMA, MHRA or any comparable foreign regulatory agency may require us to perform additional preclinical studies and clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory agency, such regulatory agency will determine that all of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with products produced under cGMP requirements. Our failure to comply with these requirements may require us to repeat clinical trials, which would delay the regulatory approval process.

While we will have agreements governing their activities, our CROs will not be our employees, and we will not be able to control whether or not they devote sufficient time and resources to our future preclinical and clinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials, or other drug development activities which could harm our business. We face the risk of potential unauthorized disclosure or misappropriation of our intellectual property by CROs, which may reduce our trade secret protection and allow our potential competitors to access and exploit our proprietary technology. CROs also may use our proprietary information and intellectual property in such a way as to invite litigation or other intellectual property-related proceedings that could jeopardize or invalidate our proprietary information and intellectual property. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for any other reason, our clinical trials may be extended, delayed or terminated, the clinical data generated in our clinical trials may be deemed unreliable, and we may not be able to obtain regulatory approval for, or successfully commercialize any product candidate that we develop. As a result, our financial results and the commercial prospects for any product candidate that we develop would be harmed, our costs could increase, and our ability to generate revenue could be delayed.

If our relationships with these CROs terminate, we may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms. Switching or adding additional CROs involves substantial cost and requires management time and focus, and could delay development and commercialization of our product candidates. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can negatively impact our ability to meet our desired clinical development timelines. Though we intend to carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a negative impact on our business and financial condition.

If we are not able to maintain our current collaborations and establish further collaborations, we may have to alter some of our future development and commercialization plans.

Our product development programs and the potential commercialization of our product candidates will require substantial additional capital to fund expenses. We have entered into collaboration agreements with pharmaceutical and biotechnology companies for certain combination therapies with 5F9 and may decide to collaborate for the future development and potential commercialization of other product candidates. For example, we have a combination clinical trial planned in ovarian cancer with Merck KGaA and combination clinical trials planned in in AML and bladder cancer with Genentech. Furthermore, we may find that our programs require the use of proprietary rights held by third parties, and the growth of our business may depend in part on our ability to acquire, in-license or use these proprietary rights. We will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of any product candidates we may seek to develop with them. We cannot predict the success of any collaboration that we have entered into or will enter into.

We face significant competition in seeking appropriate collaborators, and a number of more established companies may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, financial resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator’s resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator’s evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA, EMA, MHRA or similar foreign regulatory authorities, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, competing products, the existence of uncertainty with respect to our ownership of

technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. We may also be restricted under existing license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate further collaborations on a timely basis, on acceptable terms, or at all. Even if we are able to obtain a license to intellectual property of interest, we may not be able to secure exclusive rights, in which case others could use the same rights and compete with us. Our existing collaboration partners may not prioritize our product candidates or otherwise not effectively pursue the development of our product candidates which may delay, reduce or terminate the development of such product candidate, reduce or delay its development program or delay its potential commercialization. Further if we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to delay, reduce or terminate the development of such product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. Doing so will likely harm our ability to execute our business plans. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Because we rely on third parties to develop and manufacture our product candidates, we must, at times, share trade secrets with them. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with our collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, such as trade secrets. Despite these contractual agreements with third parties, sharing trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may harm our business.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors and consultants to publish data potentially relating to our trade secrets, although our agreements may contain certain limited publication rights. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any of our third-party collaborators. A competitor's discovery of our trade secrets would impair our competitive position and have an adverse impact on our business.

Risks Related to Regulatory Compliance

Enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may charge for such product candidates.

The United States and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay marketing approval of our product

candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product for which we obtain marketing approval.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the Affordable Care Act, was enacted, which includes measures that have significantly changed the way health care is financed by both governmental and private insurers. Some of the provisions of the Affordable Care Act have yet to be implemented, and there have been judicial and congressional challenges to certain aspects of the Affordable Care Act. In January 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The U.S. House of Representatives passed legislation known as the American Health Care Act of 2017 in May 2017. More recently, the Senate Republicans introduced and then updated a bill to replace the Affordable Care Act known as the Better Care Reconciliation Act of 2017. The Senate Republicans also introduced legislation to repeal the Affordable Care Act without companion legislation to replace it, and a "skinny" version of the Better Care Reconciliation Act of 2017. Each of these measures was rejected by the full Senate. Congress will likely consider other legislation to replace elements of the Affordable Care Act. We continue to evaluate the effect that the ACA and its possible repeal and replacement has on our business.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, then-President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction, which triggered the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of, on average, 2% per fiscal year through 2025 unless Congress takes additional action. Recently, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for drugs.

We expect that the healthcare reform measures that have been adopted and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product and could seriously harm our future revenues. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our products.

Our business operations and current and future relationships with investigators, health care professionals, consultants, third-party payors and customers will be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, health information privacy and security laws, and other healthcare laws and regulations. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

Although we do not currently have any products on the market, if we obtain FDA approval for our product candidates, and begin commercializing those products in the United States, our operations may be directly, or indirectly through our prescribers, customers and third-party payors, subject to various U.S. federal and state healthcare laws and regulations, including, without limitation, the U.S. federal Anti-Kickback Statute, the U.S. federal civil and criminal false claims laws and the Physician Payments Sunshine Act and regulations. Healthcare providers, physicians and others play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. These laws may impact, among other things, our current business

operations, including our clinical research activities, and proposed sales, marketing and education programs and constrain the business of financial arrangements and relationships with healthcare providers, physicians and other parties through which we market, sell and distribute our products for which we obtain marketing approval. In addition, we may be subject to patient data privacy and security regulation by both the U.S. federal government and the states in which we conduct our business. Finally, we may be subject to additional healthcare, statutory and regulatory requirements and enforcement by foreign regulatory authorities in jurisdictions in which we conduct our business. The laws that may affect our ability to operate include:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration (including any kickback, bribe, or certain rebates), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the U.S. federal false claims and civil monetary penalties laws, including the civil False Claims Act, which, among other things, impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the U.S. federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;
- the U.S. federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services; similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, and as amended again by the Modifications to the HIPAA Privacy, Security, Enforcement and Breach Notification Rules Under HITECH and the Genetic Information Nondiscrimination Act; Other Modifications to the HIPAA Rules, commonly referred to as the Final HIPAA Omnibus Rule, published in January 2013, which imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without appropriate authorization by covered entities subject to the Final HIPAA Omnibus Rule, i.e. health plans, healthcare clearinghouses and healthcare providers, as well as their business associates that perform certain services for or on their behalf involving the use or disclosure of individually identifiable health information;
- the U.S. Federal Food, Drug and Cosmetic Act, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;
- the U.S. federal legislation commonly referred to as Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children’s Health Insurance Program to report annually to the CMS information related to certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members;

- analogous state laws and regulations, including: state anti-kickback and false claims laws, which may apply to our business practices, including, but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and
- European and other foreign law equivalents of each of the laws, including reporting requirements detailing interactions with and payments to healthcare providers.

Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from U.S. government funded healthcare programs, such as Medicare and Medicaid, or similar programs in other countries or jurisdictions, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and the delay, reduction, termination or restructuring of our operations. Further, defending against any such actions can be costly and time-consuming, and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. If any of the physicians or other providers or entities with whom we expect to do business is found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and imprisonment. If any of the above occur, it could adversely affect our ability to operate our business and our results of operations.

We may not be able to obtain or maintain orphan drug designation or exclusivity for our product candidates.

We have obtained orphan drug designation in the United States and Europe for use of 5F9 in treating AML. We may seek orphan drug designation for other product candidates in the future. Regulatory authorities in some jurisdictions, including the United States and the European Union, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals in the United States.

Our orphan drug exclusivity for the use of 5F9 in treating AML is contingent upon a showing that 5F9 is clinically superior to existing treatments of AML. Clinical superiority may be demonstrated by showing that a drug has greater effectiveness than the approved drug, greater safety in a substantial portion of the target population, or otherwise makes a major contribution to patient care. If we are unable to demonstrate that the use of 5F9 in treating AML is clinically superior to existing treatments, we will not be entitled to the benefits of orphan drug exclusivity, which could adversely affect our business and our ability to market and sell 5F9 if it is approved for sale.

Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA or the EMA from approving another marketing application for the same drug for the same indication during that time period. The applicable period is seven years in the United States and ten years in the European Union. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or the EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

We cannot assure you that any future application for orphan drug designation with respect to any other product candidate will be granted. If we are unable to obtain orphan drug designation with respect to other product candidates in the United States, we will not be eligible to obtain the period of market exclusivity that could result from orphan drug designation or be afforded the financial incentives associated with orphan drug designation. Even when we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a later drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient patent and other intellectual property protection for our product candidates and technology, we may not be able to compete effectively in our market.

Our success depends in significant part on our ability and the ability of our licensors and collaborators to obtain, maintain, enforce and defend patents and other intellectual property rights with respect to our product candidates and technology and to operate our business without infringing, misappropriating, or otherwise violating the intellectual property rights of others. We have licensed a patent estate from The Board of Trustees of the Leland Stanford Junior University, or Stanford, - for more information, see “Business—License and Collaboration Agreements.” In addition, we have filed our own patent applications, and as of December 31, 2017, the only patent applications solely owned by us are provisional patent applications, and we do not own any issued patents. Provisional patent applications are not eligible to become issued patents until, among other things, we file a non-provisional patent application within 12 months of filing of one or more of our related provisional patent applications. If we do not timely file any non-provisional patent applications, we may lose our priority date with respect to our provisional patent applications and any patent protection on the inventions disclosed in our provisional patent applications. While we intend to timely file non-provisional patent applications relating to our provisional patent applications, we cannot predict whether any such patent applications will result in the issuance of patents that provide us with any competitive advantage.

We have also licensed patent and other intellectual property rights to and from our partners. Some of these licenses give us the right to prepare, file and prosecute patent applications and maintain and enforce patents we have licensed, whereas other licenses may not give us such rights. In some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications or to maintain the patents covering technology that we license to or from our partners, and we may have to rely on our partners to fulfill these responsibilities. Consequently, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If our current or future licensors, licensees or collaborators fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If our licensors, licensees or collaborators are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised.

The patent prosecution process is expensive and time-consuming. We and our current or future licensors, licensees or collaborators may not be able to prepare, file and prosecute all necessary or desirable patent

applications at a reasonable cost or in a timely manner. It is also possible that we or our licensors will fail to file patent applications covering inventions made in the course of development and commercialization activities before a competitor or another third party files a patent application covering, or publishes information disclosing, a similar, independently-developed invention. Such competitor's patent application may pose obstacles to our ability to obtain or limit the scope of patent protection we may obtain. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or were the first to file for patent protection of such inventions.

The patent position of biotechnology and pharmaceutical companies generally is uncertain, involves complex legal and factual questions and is the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our and our current or future licensors' patent rights are uncertain. Our and our licensors pending and future patent applications may not result in patents being issued that protect our technology or products, in whole or in part, or which effectively exclude others from commercializing competitive technologies and products. The patent examination process may require us or our licensors to narrow the scope of the claims of our pending and future patent applications, and therefore, even if such patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Our and our licensors' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover such technology. Any of the foregoing could harm our competitive position, business, financial condition, results of operations and prospects.

The patent protection we obtain for our product candidates and technology may be challenged or not sufficient enough to provide us with any competitive advantage.

Even if our owned or licensed patent applications issue as patents, the issuance of any such patents is not conclusive as to their inventorship, scope, validity, or enforceability, and such patents may be challenged, invalidated or held to be unenforceable, including in the courts or patent offices in the United States and abroad, or circumvented. We may be subject to a third party preissuance submission of prior art to the United States Patent and Trademark Office, or USPTO, or equivalent foreign bodies, or become involved in opposition, derivation, revocation, re-examination, post-grant and *inter partes* review, or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we, or one of our licensors, may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge priority of invention or other features of patentability. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and product candidates. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

Furthermore, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are

commercialized. As a result, our owned and licensed patent portfolios may not provide us with adequate protection against third parties seeking to commercialize products similar or identical to ours. We expect to request extensions of patent terms to the extent available in countries where we obtain issued patents. In the United States, the Drug Price Competition and Patent Term Restoration Act of 1984 permits a patent term extension of up to five years beyond the expiration of the patent. However, there are no assurances that the FDA or any comparable foreign regulatory authority will grant such extensions, in whole or in part. In such case, our competitors may launch their products earlier than might otherwise be anticipated. Moreover, some of our owned or in-licensed patents and patent applications are, and may in the future be, co-owned with third parties. If we are unable to obtain an exclusive license to any such co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners in order to enforce such patents against third parties, and such cooperation may not be provided to us.

In addition, our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties. For example, our license to certain intellectual property owned by Stanford is subject to certain rights Stanford granted to third parties prior to our license agreement. In addition, the research resulting in certain of our owned and in-licensed patent rights and technology was funded in part by the U.S. federal or state governments, including our grants from the California Institute for Regenerative Medicine, or CIRM. As a result, the government may have certain rights, including march-in rights, to such patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention for noncommercial purposes. These rights may permit the government to disclose our confidential information to third parties or allow third parties to use our licensed technology. The government can also exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any of the foregoing could harm our competitive position, business, financial condition, results of operations and prospects.

We are heavily dependent on licensed intellectual property. If we were to lose our rights to licensed intellectual property, we may not be able to continue developing or commercializing our product candidates, if approved. If we breach any of the agreements under which we license the use, development and commercialization rights to our product candidates or technology from third parties or, in certain cases, we fail to meet certain development deadlines, we could lose license rights that are important to our business.

We are heavily reliant upon licenses to certain patent rights and other intellectual property from third parties that are important or necessary to the development of our product candidates, including 5F9. For example, in November 2015 we entered into a license agreement with Stanford under which we are granted rights to intellectual property that are necessary to the development and commercialization of 5F9 and are otherwise important to our business. We may also need to obtain additional licenses to advance the development and commercialization of other product candidates we may develop. Our existing license agreement with Stanford imposes, and we expect that future license agreements will impose, upon us various development, regulatory and/or commercial diligence obligations, payment of milestones and/or royalties and other obligations. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy-related event, the licensor may have the right to terminate the license, in which event we would not be able to develop, market or otherwise commercialize products covered by the license, including 5F9 if any of the foregoing were to occur with respect to our license with Stanford. Our business could suffer, for example, if any current or future licenses terminate, if the licensors fail to abide by the terms of the license, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms. For more information regarding our license agreements, see "Business—License and Collaboration Agreements."

Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues and certain provisions in intellectual property license agreements may be susceptible to multiple interpretations. Disputes may arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners;
- our right to transfer or assign the license; and
- the effects of termination.

The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could harm our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

We may enter into additional licenses to third-party intellectual property that are necessary or useful to our business. Our current licenses and any future licenses that we may enter into impose various royalty payment, milestone and other obligations on us. Under some license agreements, we may not control prosecution of the licensed intellectual property, or may not have the first right to enforce the intellectual property. In those cases, we may not be able to adequately influence patent prosecution or enforcement, or prevent inadvertent lapses of coverage due to failure to pay maintenance fees. If we fail to comply with any of our obligations under a current or future license agreement, the licensor may allege that we have breached our license agreement, and may accordingly seek to terminate our license. Termination of any of our current or future licenses could result in our loss of the right to use the licensed intellectual property, which could materially adversely affect our ability to develop and commercialize a product candidate or product, if approved, as well as harm our competitive business position and our business prospects. Under some license agreements, termination may also result in the transfer or granting of rights under certain of our intellectual property and information related to the product candidate being developed under the license, such as regulatory information.

In addition, if our licensors fail to abide by the terms of the license, if the licensors fail to prevent infringement by third parties, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms, our business, competitive position, financial condition, results of operations and prospects could be materially harmed.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming and unsuccessful, and issued patents covering our technology and product candidates could be found invalid or unenforceable if challenged.

Competitors and other third parties may infringe or otherwise violate our issued patents or other intellectual property or the patents or other intellectual property of our licensors. In addition, our patents or the patents of our

licensors may become involved in inventorship or priority disputes. Our pending patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. To counter infringement or other unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents or that our patents are invalid or unenforceable. In a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology. An adverse result in any litigation proceeding could put one or more of our owned or licensed patents at risk of being invalidated, held unenforceable or interpreted narrowly. We may find it impractical or undesirable to enforce our intellectual property against some third parties.

If we were to initiate legal proceedings against a third party to enforce a patent directed to our product candidates, or one of our future product candidates, the defendant could counterclaim that our patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement or insufficient written description. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Third parties may also raise similar claims before the USPTO or an equivalent foreign body, even outside the context of litigation. Potential proceedings include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions (*e.g.*, opposition proceedings). Such proceedings could result in the revocation of, cancellation of, or amendment to our patents in such a way that they no longer cover our technology or any product candidates that we may develop. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on the applicable product candidates or technology covered by the patent rendered invalid or unenforceable. Such a loss of patent protection would materially harm our business, financial condition, results of operations and prospects.

Interference proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be materially harmed if the prevailing party does not offer us a license on commercially reasonable terms.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Most of our competitors are larger than we are and have substantially greater resources. They are, therefore, likely to be able to sustain the costs of complex patent litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon, misappropriating or otherwise violating our intellectual property. Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims could result in substantial costs and diversion of management resources, which could harm our business. In addition, the uncertainties associated with litigation could compromise our ability to raise the funds necessary to continue our clinical trials, continue our internal research programs, or in-license needed technology or other product candidates. There could also be public announcements of the results of the hearing, motions, or other interim proceedings or developments. If securities

analysts or investors perceive those results to be negative, it could cause the price of shares of our common stock to decline. Any of the foregoing events could harm our business, financial condition, results of operation and prospects.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, maintaining, defending and enforcing patents on our product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own drugs and may export otherwise infringing drugs to territories where we have patent protection, but enforcement rights are not as strong as those in the United States. These drugs may compete with our product candidates and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of some countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

Many countries, including European Union countries, India, Japan and China, have compulsory licensing laws under which a patent owner may be compelled under specified circumstances to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In those countries, we may have limited remedies if patents are infringed or if we are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license, which could adversely affect our business, financial condition, results of operations and prospects.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent which might adversely affect our ability to develop and market our product candidates.

We cannot guarantee that any of our or our licensors' patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending patent application in the United States and abroad that is relevant to or necessary for the commercialization of our product candidates in any jurisdiction. For example, U.S. patent applications filed before November 29, 2000 and certain U.S. patent applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our product candidates could have been filed by third parties without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidates or the use of our product candidates. The scope of a patent claim is determined by an interpretation of

the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our product candidates. We may incorrectly determine that our product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our product candidates.

If we fail to identify and correctly interpret relevant patents, we may be subject to infringement claims. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we fail in any such dispute, in addition to being forced to pay damages, which may be significant, we may be temporarily or permanently prohibited from commercializing any of our product candidates that are held to be infringing. We might, if possible, also be forced to redesign product candidates so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business and could adversely affect our business, financial condition, results of operations and prospects.

If we are unable to obtain licenses from third parties on commercially reasonable terms or fail to comply with our obligations under such agreements, our business could be harmed.

It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties. If we are unable to license such technology, or if we are forced to license such technology, on unfavorable terms, our business could be materially harmed. If we are unable to obtain a necessary license, we may be unable to develop or commercialize the affected product candidates, which could materially harm our business, and the third parties owning such intellectual property rights could seek either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us.

If we fail to comply with our obligations under our license agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market, or may be forced to cease developing, manufacturing or marketing, any product that is covered by these agreements or may face other penalties under such agreements. Such an occurrence could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements with less favorable terms, cause us to lose our rights under these agreements, including our rights to important intellectual property or technology, or impede, delay or prohibit the further development or commercialization of one or more product candidates that rely on such agreements.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired for a product candidate, we may be open to competition from competitive medications, including generic medications. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing product candidates similar or identical to ours.

Depending upon the timing, duration and conditions of any FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments, and similar legislation in the European Union. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than we request. Only one patent per approved product can be extended, the extension cannot extend the total patent term beyond 14 years from approval and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. If we are unable to obtain patent term extension or the term of any such extension is less than we request, the period during which we can enforce our patent rights for the applicable product candidate will be shortened and our competitors may obtain approval to market competing products sooner. As a result, our revenue from applicable products could be reduced. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case, and our competitive position, business, financial condition, results of operations and prospects could be materially harmed.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

Obtaining and enforcing patents in the pharmaceutical industry is inherently uncertain, due in part to ongoing changes in the patent laws. Depending on decisions by Congress, the federal courts, and the USPTO, the laws and regulations governing patents, and interpretation thereof, could change in unpredictable ways that could weaken our and our licensors' or collaborators' ability to obtain new patents or to enforce existing or future patents. For example, the Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. Therefore, there is increased uncertainty with regard to our and our licensors' or collaborators' ability to obtain patents in the future, as well as uncertainty with respect to the value of patents once obtained.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our and our licensors' or collaborators' patent applications and the enforcement or defense of our or our licensors' or collaborators' issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act, or the Leahy-Smith Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. The Leahy-Smith Act also includes a number of significant changes that affect the way patent applications are prosecuted and may also affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review and derivation proceedings. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, particularly the first inventor-to-file provisions. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our or our licensors' patent applications and the enforcement or defense of our or our licensors' issued patents, all of which could harm our business, financial condition, results of operations and prospects.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated if we fail to comply with these requirements.

Periodic maintenance and annuity fees on any issued patent are required to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of a patent. In certain circumstances, we rely on our licensors to pay these fees. The USPTO and various foreign patent agencies also require compliance with a number of procedural, documentary, fee payment and other similar requirements during the patent application and prosecution process. Noncompliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official communications within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in irrevocable abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we or our licensors or collaborators fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market with similar or identical products or technology, which would harm our business, financial condition, results of operations and prospects.

Third parties may initiate legal proceedings alleging that we are infringing, misappropriating or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could negatively impact the success of our business.

Our commercial success depends upon our ability to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and other proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our drugs and technology, including re-examination, interference, post-grant review, inter partes review or derivation proceedings before the USPTO or an equivalent foreign body. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing our product candidates. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of their merit.

Even if we believe third-party intellectual property claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability or priority. A court of competent jurisdiction could hold that third-party patents asserted against us are valid, enforceable and infringed, which could materially and adversely affect our ability to commercialize any product candidates we may develop and any other product candidates or technologies covered by the asserted third-party patents. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. If we are found to infringe, misappropriate or otherwise violate a third party's intellectual property rights, and we are unsuccessful in demonstrating that such rights are invalid or unenforceable, we could be required to obtain a license from such a third party in order to continue developing and marketing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties and other fees, redesign our infringing drug or obtain one or more licenses from third parties, which may be impossible or require substantial time and

monetary expenditure. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business. Any of the foregoing events would harm our business, financial condition, results of operations and prospects.

We may be subject to claims by third parties asserting that we or our employees have infringed upon, misappropriated or otherwise violated their intellectual property rights, or claiming ownership of what we regard as our own intellectual property.

Many of our employees were previously employed at other biotechnology or pharmaceutical companies. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's former employer. Litigation may be necessary to defend against these claims.

In addition, we or our licensors may be subject to claims that former employees, collaborators, or other third parties have an interest in our owned or in-licensed patents or other intellectual property as an inventor or co-inventor. While it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs, delay development of our product candidates and be a distraction to management. Any of the foregoing events would harm our business, financial condition, results of operations and prospects.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace, including compromising our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties, or enter into development collaborations that would help us commercialize our product candidates, if approved. Any of the foregoing events would harm our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

We rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology and other proprietary information and to maintain our competitive position. Trade secrets and know-how can be

difficult to protect. We seek to protect these trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. We cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology and processes. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to any product candidates we may develop or utilize similar technology but that are not covered by the claims of the patents that we license or may own in the future;
- we, or our current or future licensors might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future;
- we, or our current or future licensors might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our pending owned or licensed patent applications or those that we may own or license in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could harm our business, financial condition, results of operations and prospects.

Risks Related to Our Business Operations, Employee Matters and Managing Growth

Our future success depends on our ability to retain key employees, consultants and advisors and to attract, retain and motivate qualified personnel.

We are highly dependent on the management, research and development, clinical, financial and business development expertise of our executive officers, as well as the other members of our scientific and clinical teams. Although we have employment offer letters with each of our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or employees.

Recruiting and retaining qualified scientific and clinical personnel and, if we are successful in obtaining marketing approval for our product candidates, sales and marketing personnel, is critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval for and commercialize our product candidates. Competition to hire qualified personnel in our industry is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. Furthermore, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or that they have divulged proprietary or other confidential information, or that their former employers own their research output. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited, and our business, prospects, financial condition and results of operations may be adversely affected.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of December 31, 2017, we had 43 employees. As our clinical development progresses, we expect to experience growth in the number of our employees and the scope of our operations, particularly in the areas of clinical operations, regulatory affairs and, if any of our product candidates receives marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs and vendors may engage in fraudulent conduct or other illegal

activity. Misconduct by these parties could include intentional, reckless or negligent conduct or unauthorized activities that violates (1) the laws and regulations of the FDA, the EMA, the MHRA and other similar regulatory authorities, including those laws requiring the reporting of true, complete and accurate information to such authorities, (2) manufacturing standards, (3) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and abroad and (4) laws that require the true, complete and accurate reporting of financial information or data. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Misconduct by these parties could also involve the improper use of individually identifiable information, including information obtained in the course of clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of product candidates, which could result in regulatory sanctions and serious harm to our reputation.

Prior to the closing of this offering, we intend to adopt a code of business conduct and ethics, but it is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, including damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm and the delay, reduction, termination or restructuring of our operations.

Our international operations may expose us to business, regulatory, political, operational, financial, pricing and reimbursement risks associated with doing business outside of the United States.

Our business is subject to risks associated with conducting business internationally. Some of our suppliers, industry partners and clinical study centers are located outside of the United States. Furthermore, our business strategy incorporates potential international expansion as we seek to obtain regulatory approval for, and commercialize, our product candidates in patient populations outside the United States. If approved, we may hire sales representatives and conduct physician and patient association outreach activities outside of the United States. Doing business internationally involves a number of risks, including but not limited to:

- multiple, conflicting and changing laws and regulations such as privacy regulations, tax laws, export and import restrictions, employment laws, regulatory requirements, and other governmental approvals, permits and licenses;
- failure by us to obtain and maintain regulatory approvals for the use of our products in various countries;
- rejection or qualification of foreign clinical trial data by the competent authorities of other countries;
- additional potentially relevant third-party patent rights;
- complexities and difficulties in obtaining, maintaining, protecting and enforcing our intellectual property;
- difficulties in staffing and managing foreign operations;
- complexities associated with managing multiple payor reimbursement regimes, government payors or patient self-pay systems;
- limits in our ability to penetrate international markets;

- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products and exposure to foreign currency exchange rate fluctuations;
- natural disasters, political and economic instability, including wars, terrorism and political unrest, outbreak of disease, boycotts, curtailment of trade and other business restrictions;
- certain expenses including, among others, expenses for travel, translation and insurance; and
- regulatory and compliance risks that relate to anti-corruption compliance and record-keeping that may fall within the purview of the U.S. Foreign Corrupt Practices Act, its accounting provisions or its anti-bribery provisions or provisions of anti-corruption or anti-bribery laws in other countries.

Any of these factors could harm our future international expansion and operations and, consequently, our results of operations.

Our internal computer systems, or those used by our CROs or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems, and those of our CROs and other third parties on which we rely, are vulnerable to damage from computer viruses and unauthorized access, malware, natural disasters, fire, terrorism, war and telecommunication, electrical failures, cyber-attacks or cyber-intrusions over the Internet, attachments to emails, persons inside our organization, or persons with access to systems inside our organization. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. While we have not experienced any such material system failure or security breach to our knowledge to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed, ongoing or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we rely on third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our future product candidates could be delayed.

Risks Related to This Offering and Our Common Stock

We have identified material weaknesses in our internal control over financial reporting. If our remediation of the material weaknesses is not effective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to accurately or timely report our financial condition or results of operations, which may adversely affect investor confidence in us and, as a result, the value of our common stock.

Prior to the completion of this offering, we have been a private company with limited accounting personnel to adequately execute our accounting processes and other supervisory resources with which to address our internal control over financial reporting. In connection with the audit of our financial statements, we identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis. The material weaknesses related to our accounting for complex transactions and the timing of our recognition of research and development expenses. We are implementing measures designed to improve our internal control over financial reporting to remediate these material weaknesses including, the engagement of technical accounting consulting

resources, plans to hire additional finance department employees and the implementation of more formal policies and procedures related to the accounting for our procurement and vendor payment process.

We cannot assure you that the measures we have taken to date, and are continuing to implement, will be sufficient to remediate the material weaknesses we have identified or avoid potential future material weaknesses. If the steps we take do not correct the material weaknesses in a timely manner, we will be unable to conclude that we maintain effective internal control over financial reporting. Accordingly, there could continue to be a reasonable possibility that a material misstatement of our financial statements would not be prevented or detected on a timely basis.

If we fail to remediate our existing material weaknesses or identify new material weaknesses in our internal controls over financial reporting, if we are unable to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, if we are unable to conclude that our internal controls over financial reporting are effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting when we are no longer an emerging growth company, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected. As a result of such failures, we could also become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, and become subject to litigation from investors and stockholders, which could harm our reputation and financial condition or divert financial and management resources from our regular business activities.

An active trading market for our common stock may not develop and you may not be able to resell your shares of our common stock at or above the initial offering price, if at all.

Prior to this offering, there has been no public market for our common stock. We cannot predict the extent to which an active market for our common stock will develop or be sustained after this offering, or how the development of such a market might affect the market price for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters and may not be indicative of the price at which our common stock will trade after the closing of this offering. Although we have applied to list our common stock on the Nasdaq Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop or is not sustained, it may be difficult for you to sell shares you purchased in this offering at an attractive price or at all.

The trading price of the shares of our common stock may be volatile, and purchasers of our common stock could incur substantial losses.

Our stock price may be volatile. The stock market in general and the market for pharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the shares. The market price for our common stock may be influenced by many factors, including:

- adverse regulatory decisions;
- any delay in our regulatory filings for our product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- the commencement, enrollment or results of any future clinical trials we may conduct, or changes in the development status of our product candidates;
- adverse results from, delays in or termination of clinical trials;
- unanticipated serious safety concerns related to the use of our product candidates;
- lower than expected market acceptance of our product candidates following approval for commercialization;

- changes in financial estimates by us or by any securities analysts who might cover our stock;
- conditions or trends in our industry;
- changes in the market valuations of similar companies;
- stock market price and volume fluctuations of comparable companies and, in particular, those that operate in the pharmaceutical industry;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- announcements by us or our competitors of significant acquisitions, strategic partnerships or divestitures;
- announcements of investigations or regulatory scrutiny of our operations or lawsuits filed against us;
- investors' general perception of our company and our business;
- recruitment or departure of key personnel;
- overall performance of the equity markets;
- trading volume of our common stock;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;
- proposed changes to healthcare laws in the United States or foreign jurisdictions, or speculation regarding such changes;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, in the past, stockholders have initiated class action lawsuits against pharmaceutical and biotechnology companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources from our business.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that equity research analysts publish about us and our business. We do not currently have and may never obtain research coverage by equity research analysts. Equity research analysts may elect not to provide research coverage of our common stock after this offering, and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

If you purchase shares of our common stock in this offering, you will suffer immediate dilution of your investment.

The assumed initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our pro forma as adjusted net tangible book value per share after this offering. Based on an assumed initial public offering price of $ per share,

the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share, representing the difference between our pro forma as adjusted net tangible book value per share after this offering and the assumed initial public offering price. In addition, to the extent outstanding stock options are exercised, there will be further dilution to investors in this offering. In addition, if the underwriters exercise their over-allotment option or if we issued additional equity securities, you will experience additional dilution. See "Dilution" for a more detailed description of the dilution to investors in the offering.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time, subject to the restrictions and limitations described below. If our stockholders sell, or the market perceives that our stockholders intend to sell, substantial amounts of our common stock in the public market following this offering, the market price of our common stock could decline significantly.

Upon the closing of this offering, we will have outstanding shares of common stock, after giving effect to the conversion of our preferred stock outstanding as of December 31, 2017 into 125,673,575 shares of our common stock, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options. Of these shares, the shares sold in this offering will be freely tradable and the remaining shares of common stock will be available for sale in the public market beginning after the end of the 180th day after the date of this prospectus following the expiration of lock-up agreements between our stockholders and certain of the underwriters for this offering, subject, in the case of our affiliates, to the conditions of Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC on behalf of the underwriters may release these stockholders from their lock-up agreements at any time and without notice, which would allow for earlier sales of shares in the public market subject to the conditions of Rule 144 under the Securities Act.

In addition, promptly following the closing of this offering, we intend to file one or more registration statements on Form S-8 registering the issuance of approximately million shares of common stock subject to options or other equity awards issued or reserved for future issuance under our equity incentive plans. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up agreements described above and, in the case of our affiliates, the restrictions of Rule 144.

Additionally, after this offering, the holders of an aggregate of shares of our common stock, or their transferees, will have rights, subject to some conditions, to require us to file one or more registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. If we were to register the resale of these shares, they could be freely sold in the public market without limitation. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Provisions in our corporate charter documents and under Delaware law may prevent or frustrate attempts by our stockholders to change our management and hinder efforts to acquire a controlling interest in us, and the market price of our common stock may be lower as a result.

There are provisions in our certificate of incorporation and bylaws, as they will be in effect following this offering, that may make it difficult for a third-party to acquire, or attempt to acquire, control of our company, even if a change in control was considered favorable by our stockholders.

Our charter documents will also contain other provisions that could have an anti-takeover effect, such as:

- establishing a classified board of directors so that not all members of our board of directors are elected at one time;

- permitting the board of directors to establish the number of directors and fill any vacancies and newly created directorships;
- providing that directors may only be removed for cause;
- prohibiting cumulative voting for directors;
- requiring super-majority voting to amend some provisions in our certificate of incorporation and bylaws;
- authorizing the issuance of "blank check" preferred stock that our board of directors could use to implement a stockholder rights plan;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders; and
- reflecting our two classes of common stock as described above.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibit a person who owns 15% or more of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner. Any provision in our certificate of incorporation or our bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our Class A common stock, and could also affect the price that some investors are willing to pay for our Class A common stock.

Concentration of ownership of our common stock among our existing executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

Based upon our common stock outstanding as of , upon the closing of this offering, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own approximately % of our outstanding common stock. Based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, the number of common stock beneficially owned by our executive officers, directors and current 5% stockholders and their respective affiliates will, in the aggregate, decrease to % of our common stock. These stockholders, acting together, will be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors and approval of any merger, consolidation or sale of all or substantially all of our assets.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

We will incur costs and demands upon our management as a result of complying with the laws and regulations affecting public companies in the United States, which may harm our business.

As a public company listed in the United States, we will incur significant additional legal, accounting and other expenses. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the Securities and Exchange Commission, or SEC, and the Nasdaq Global Market may increase legal and financial compliance costs and make some activities more time consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest

resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from regular business activities to compliance activities. If, notwithstanding our efforts, we fail to comply with new laws, regulations and standards, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

Failure to comply with these rules might also make it more difficult for us to obtain certain types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on committees of our board of directors or as members of senior management.

We are an "emerging growth company," and as a result of the reduced reporting requirements applicable to "emerging growth companies" our common stock may be less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act. For as long as we continue to be an "emerging growth company," we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. As an "emerging growth company," we are required to report only two years of financial results and selected financial data compared to three and five years, respectively, for comparable data reported by other public companies. We may take advantage of these exemptions until we are no longer an "emerging growth company." We could be an "emerging growth company" for up to five years, although circumstances could cause us to lose that status earlier, including if the aggregate market value of our common stock held by non-affiliates exceeds $700 million as of any June 30 (the end of our second quarter) before that time, in which case we would no longer be an "emerging growth company" as of the following December 31 (our year-end). We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and the price of our common stock may be more volatile.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

After the closing of this offering, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act and the rules and regulations of the Nasdaq Global Market. Section 302 of the Sarbanes-Oxley Act requires, among other things, that we report on the effectiveness of our disclosure controls and procedures in our quarterly and annual reports and, beginning with our annual report for the year ending 2019, Section 404 of the Sarbanes-Oxley Act requires that we perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting in our Form 10-K filing for that year. This will require that we incur substantial additional professional fees and internal costs to expand our accounting and finance functions and that we expend significant management efforts. Prior to this offering, we have never been required to test our internal control within a specified period, and, as a result, we may experience difficulty in meeting these reporting requirements in a timely manner.

As a public company, we will be required to maintain internal control over financial reporting and to report any material weaknesses in those internal controls. We and our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting, for the year ended December 31, 2016, related to the accounting for complex transactions and the timing of expense recognition for research and development expenses. During 2017, management has hired key accounting personnel, created a formal month-end close process, and established more robust processes supporting internal controls over financial reporting, including accounting policies and procedures. Our remediation efforts are ongoing. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control

system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If that were to happen, the market price of our stock could decline and we could be subject to sanctions or investigations by the Nasdaq Global Market, the SEC or other regulatory authorities. In addition, our common stock may not be able to remain listed on the Nasdaq Global Market or any other securities exchange.

We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. We intend to use the net proceeds from this offering to conduct our clinical trials, to fund continued research and development of 5F9 in several applications, to fund other research and development activities, and for working capital and other general corporate purposes. The failure by our management to apply these funds effectively could result in financial losses that could have an adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

You should not rely on an investment in our common stock to provide dividend income. We have not declared or paid cash dividends on our common stock to date. We currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any existing or future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Investors seeking cash dividends should not purchase our common stock.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of a fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees. Some companies that adopted a similar federal district court forum selection provision are currently subject to a suit in the Chancery Court of Delaware by stockholders who assert that the provision is not enforceable. If a court were to find either choice of forum provisions contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, 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, factors and assumptions described under the section titled “Risk Factors” and elsewhere in this prospectus, regarding, 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 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;
- 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 candidate;
- future agreements with third parties in connection with the commercialization of our product candidates;
- 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;
- our ability to attract and retain key scientific or management personnel;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;

- our use of the proceeds from this offering; and
- our ability to maintain proper and effective internal controls.

These risks are not exhaustive. Other sections of this prospectus may include additional factors that could adversely impact our business and financial performance. New risk factors may 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 prospectus or to conform these statements to actual results or to changes in our expectations.

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 prospectus, 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.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and achievements may be different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

INDUSTRY AND MARKET DATA

This prospectus contains estimates, projections and other information concerning our industry and our business, including estimated market size, projected growth rates and the incidence of certain medical conditions. Unless otherwise expressly stated, we obtained this industry, business, market, medical and other information from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which this information is derived. In that regard, when we refer to one or more sources of this type of information in any paragraph, you should assume that other information of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

This industry, business, market, medical and other information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified any third-party information and cannot assure you of its accuracy or completeness. Although we are responsible for all of the disclosure contained in this prospectus and we believe the market position, market opportunity, market size and medical information included in this prospectus is reliable, such information is inherently imprecise. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section titled “Risk Factors” and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of shares of common stock in this offering will be approximately $ million at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their over-allotment option in full, we estimate that the net proceeds to us will be approximately $ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, respectively, our net proceeds by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease, respectively, the net proceeds from this offering, after deducting underwriting discounts and commissions by $ million, assuming the assumed initial public offering price stays the same.

We currently expect to use our net proceeds from this offering as follows:

- approximately $ to $ million to further the clinical development of 5F9 through completion of our existing Phase 1 monotherapy and planned PD-L1 combination clinical trials;
- approximately $ to $ million to further the clinical development of 5F9 through completion of Phase 2 combination clinical trials in NHL and CRC or alternative Phase 2 indications if there are compelling clinical data;
- approximately $ to $ million to further the development of our anti-SIRPa antibody product candidate, FSI-189, through IND enabling studies; and
- the remaining proceeds for research and drug discovery activities related to additional product candidates, working capital and general corporate purposes.

However, due to the uncertainties inherent in the product development process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. Our management will have broad discretion over the use of the net proceeds from this offering. The amounts and timing of our expenditures will depend upon numerous factors including the results of our research and development efforts, the timing and success of preclinical studies and any ongoing clinical trials or clinical trials we may commence in the future, the timing of regulatory submissions and the amount of cash obtained through future collaborations, if any. Following this offering, we will require additional funding in order to complete clinical development and commercialize our lead product candidate, 5F9, and complete the clinical development of any additional product candidates.

We believe opportunities may exist from time to time to expand our current business through acquisitions or in-licenses of complementary companies, medicines or technologies. While we have no current agreements, commitments or understandings for any specific acquisitions or in-licenses at this time, we may use a portion of the net proceeds for these purposes.

Pending the use of the proceeds from this offering as described above, we intend to invest the net proceeds in interest-bearing investment-grade securities or government securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings, if any, to support operations and to finance the growth and development of our business. We do not intend to declare or pay cash dividends on common stock in the foreseeable future.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of December 31, 2017, on:

- an actual basis;
- a pro forma basis to reflect (i) the conversion of all the outstanding shares of preferred stock into 125,673,575 shares of common stock immediately upon the closing of this offering; and (ii) the filing and effectiveness of our amended and restated certificate of incorporation;
- a pro forma as adjusted basis to further reflect the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with the sections of this prospectus titled "Summary Financial Data," "Selected Financial Data," "Description of Capital Stock" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements and related notes included elsewhere in this prospectus.

	As of December 31, 2017		
	Actual	Pro Forma	Pro Forma, As Adjusted(1)
	(In thousands, except share and per share data)		
Cash, cash equivalents and short-term investments	$ 88,111	$	$
Stockholders' equity:			
Convertible preferred stock, $0.0001 par value per share. 125,673,575 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	$ 149,397	$	$
Preferred stock, $0.0001 par value per share. No shares authorized, issued and outstanding, actual; shares authorized, and no shares issued and outstanding, pro forma and pro forma as adjusted			
Common stock, $0.0001 par value per share. 200,000,000 shares authorized, 52,321,593 shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma and pro forma as adjusted	5		
Additional paid-in capital	3,503		
Accumulated other comprehensive loss	(44)		
Accumulated deficit	(69,399)		
Total stockholders' equity	83,462		
Total capitalization	$ 83,462	$	$

(1) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, respectively, the amount of cash, cash equivalents and short-term investments, additional paid-in-capital, total stockholders' equity and total capitalization by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of 1,000,000 in the

number of shares we are offering would increase or decrease, respectively, the amount of cash, cash equivalents and short-term investments, additional paid-in-capital, total stockholders' equity and total capitalization by approximately $ million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions. The pro forma as adjusted information is illustrative only, and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The outstanding share information in the table above excludes, as of December 31, 2017, the following shares:

- 16,294,994 shares of common stock issuable upon the exercise of stock options outstanding as of December 31, 2017, with a weighted average exercise price of $0.58 per share;
- 1,774,598 additional shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan as of December 31, 2017 (excluding options granted subsequent to December 31, 2017), which shares will cease to be available for issuance at the time our 2018 Equity Incentive Plan becomes effective in connection with this offering;
- shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan; and
- shares of common stock reserved for issuance under our 2018 Employee Stock Purchase Plan, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after the closing of this offering.

Our pro forma net tangible book value of our common stock as of was $ million, or $ per share, based on the total number of shares of our common stock outstanding as of . Pro forma net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of outstanding shares of common stock, after giving effect to the conversion of all outstanding shares of preferred stock into shares of common stock immediately upon the closing of this offering.

After giving effect to the conversion of our outstanding preferred stock into common stock immediately upon the closing of this offering and the receipt of the net proceeds from our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of , would have been $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and immediate dilution of $ per share to investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed initial public offering price per share		$
Pro forma net tangible book value per share as of December 31, 2017	$	
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution in net tangible book value per share to new investors in this offering		$

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, respectively, our pro forma as adjusted net tangible book value per share after this offering by $ per share and the dilution to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 shares in the number of shares of common stock offered by us would increase or decrease, respectively, the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, assuming the assumed initial public offering price remains the same and after deducting underwriting discounts and commissions.

If the underwriters exercise their over-allotment option in full, the pro forma as adjusted net tangible book value per share after giving effect to this offering would be $ per share, and the dilution in pro forma as adjusted net tangible book value per share to new investors in this offering would be $ per share.

The following table summarizes, as of December 31, 2017:

- the total number of shares of common stock purchased from us by our existing stockholders and by new investors purchasing shares in this offering;
- the total consideration paid to us by our existing stockholders and by new investors purchasing shares in this offering, assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting the underwriting discounts and commissions and estimated offering expenses payable by us in connection with this offering; and

- the average price per share paid by existing stockholders and by new investors purchasing shares in this offering.

	Shares Purchased		Total Consideration		Average
	Number	Percent	Amount	Percent	Price Per Share
Existing stockholders		%	$	%	$
New investors					$
Total		100%	$	100%	

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' over-allotment option. If the underwriters exercise their over-allotment option in full, our existing stockholders would own % and our new investors would own % of the total number of shares of common stock outstanding upon the closing of this offering.

The number of shares of our common stock that will be outstanding after this offering is based on 177,995,168 shares of common stock outstanding as of December 31, 2017, and excludes:

- 16,294,994 shares of common stock issuable upon the exercise of stock options outstanding as of December 31, 2017, with a weighted average exercise price of $0.58 per share;
- 1,774,598 additional shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan as of December 31, 2017 (excluding options granted subsequent to December 31, 2017), which shares will cease to be available for issuance at the time our 2018 Equity Incentive Plan becomes effective in connection with this offering;
- shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective upon the execution of the underwriting agreement for this offering as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan; and
- shares of common stock reserved for issuance under our 2018 Employee Stock Purchase Plan, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, would increase or decrease, respectively, the total consideration paid by new investors by $ million and increase or decrease, respectively, the total consideration paid by new investors by %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and before deducting underwriting discounts and commissions.

In addition, to the extent any outstanding options are exercised, new investors would experience further dilution.

SELECTED FINANCIAL DATA

You should read the selected financial data together with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. The selected financial data included in this section are not intended to replace the financial statements and related notes included elsewhere in this prospectus. We derived the statement of operations data for the years ended December 31, 2016 and December 31, 2017 and balance sheet data as of December 31, 2016 and December 31, 2017 from our audited financial statements included elsewhere in this prospectus.

	Year Ended December 31,	
	2016	2017
	(In thousands, except share and per share data)	
Statement of Operations Data:		
Operating expenses:		
Research and development	$ 14,464	$ 37,174
General and administrative	5,153	8,130
Total operating expenses	19,617	45,304
Loss from operations	(19,617)	(45,304)
Interest and other income, net	78	406
Net loss	$ (19,539)	$ (44,898)
Net loss per share, basic and diluted(1)	$ (0.41)	$ (0.90)
Shares used in computing net loss per share, basic and diluted	48,028,336	50,131,995
Pro forma net loss per share, basic and diluted (unaudited)(1)		$
Shares used in computing pro forma net loss per share, basic and diluted (unaudited)		$

(1) See Note 10 of the notes to our financial statements included elsewhere in this prospectus for a description of how we compute basic and diluted net loss per share and unaudited pro forma net loss per share.

	As of December 31,	
	2016	2017
	(In thousands)	
Balance Sheet Data:		
Cash, cash equivalents and short-term investments	$ 9,742	$ 88,111
Total assets	16,988	95,465
Working capital	9,692	81,289
Total liabilities	4,754	12,003
Accumulated deficit	(24,501)	(69,399)
Total stockholders' equity	12,234	83,462

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the related notes included elsewhere in this prospectus. In addition to historical financial information, this discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and elsewhere in this prospectus.

Overview

We are a clinical-stage immuno-oncology company focused on developing novel checkpoint therapies to activate macrophages in the fight against cancer. We founded Forty Seven based on the insight that blocking CD47, a key signaling molecule that is overexpressed on cancer cells, renders tumors susceptible to macrophages. By harnessing macrophages, we believe that our lead product candidate, 5F9, dosed as a monotherapy or in combination with marketed cancer therapies, can transform the treatment of cancer. 5F9 has demonstrated promising activity in five Phase 1b/2 clinical trials in which we have treated over 190 relapsed or refractory cancer patients with solid or hematologic tumors. We hold worldwide rights to all of our product candidates.

We focus our efforts on targeting the CD47 pathway as a way to engage macrophages in fighting tumors. Macrophages function as first responders, swallowing foreign and abnormal cells, including cancer cells, and mobilizing other components of the immune system including T cells and antibodies. Cancer cells use CD47, a "don't eat me" signal, in order to evade detection by the immune system and subsequent destruction by macrophages. Overexpression of CD47 is common to nearly all types of tumors and is also correlated with poor prognosis in multiple cancers including AML, CRC, gastric cancer, lung cancer, NHL and ovarian cancer. Despite the central role of macrophages as cell-eating scavengers and first responders, the pharmaceutical industry is only beginning to bring this key group of cells into the fight against cancer.

Since our inception in 2014, we have devoted substantially all of our resources to identifying and developing 5F9, advancing our preclinical programs, conducting clinical trials and providing general and administrative support for these operations. We have not recorded revenue from product sales or collaboration activities, or any other source. We have funded our operations to date primarily from the issuance and sale of our preferred stock and the receipt of government and private grants. We are eligible to receive up to $19.2 million in grants from CIRM and the Leukemia and Lymphoma Society, or LLS, of which $5.9 million has been received through December 31, 2017.

We have incurred net losses in each year since inception. Our net losses were $19.5 million and $44.9 million for 2016 and 2017, respectively. As of December 31, 2017, we had an accumulated deficit of $69.4 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect to continue to incur significant expenses and increasing operating losses over at least the next several years. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- advance product candidates through clinical trials;
- pursue regulatory approval of product candidates;
- operate as a public company;
- continue our preclinical programs and clinical development efforts;
- continue research activities for the discovery of new product candidates; and
- manufacture supplies for our preclinical studies and clinical trials.

Components of Results of Operations

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for the development of our lead product candidate, 5F9, which include:

- expenses incurred under agreements with third-party contract organizations, investigative clinical trial sites that conduct research and development activities on our behalf, and consultants;
- costs related to production of clinical materials, including fees paid to contract manufacturers;
- laboratory and vendor expenses related to the execution of preclinical and clinical trials;
- employee-related expenses, which include salaries, benefits and stock-based compensation; and
- facilities and other expenses, which include expenses for rent and maintenance of facilities, depreciation and amortization expense and other supplies.

We expense all research and development costs in the periods in which they are incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors, collaborators and third-party service providers. Nonrefundable advance payments for goods or services to be received in future periods for use in research and development activities are deferred and capitalized. The capitalized amounts are then expensed as the related goods are delivered and as services are performed.

The largest component of our operating expenses has historically been our investment in research and development activities related to the clinical development of our lead product candidate, 5F9. We recognize the funds from research and development grants as a reduction of research and development expense when the related eligible research costs are incurred. Research and development grants received during 2017 totaled $5.9 million. No grants were received during 2016.

We expect our research and development expenses to increase substantially for the foreseeable future as we continue to invest in research and development activities related to developing our product candidates, as our product candidates advance into later stages of development, and as we begin to conduct larger clinical trials. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming, and the successful development of our product candidates is highly uncertain. As a result, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of any of our product candidates.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel-related costs, facilities costs, depreciation and amortization expenses and professional services expenses, including legal, human resources, audit and accounting services. Personnel-related costs consist of salaries, benefits and stock-based compensation. Facilities costs consist of rent and maintenance of facilities. We expect our general and administrative expenses to increase for the foreseeable future due to anticipated increases in headcount to advance our product candidates and as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC, the Nasdaq Global Market, additional insurance expenses, investor relations activities and other administrative and professional services.

Interest and Other Income, Net

Interest and other income, net consists of interest earned on our cash equivalents and short-term investments and foreign currency transaction gains and losses incurred during the period.

Results of Operations

Years Ended December 31, 2016 and 2017

	Year Ended December 31, 2016	2017	Increase/ (Decrease)
		(In thousands)	
Operating expenses:			
Research and development	$ 14,464	$ 37,174	$ 22,710
General and administrative	5,153	8,130	2,977
Total operating expenses	19,617	45,304	25,687
Loss from operations	(19,617)	(45,304)	(25,687)
Interest and other income, net	78	406	328
Net loss	$ (19,539)	$ (44,898)	$ (25,359)

Research and Development Expenses

Research and development expenses increased by $22.7 million, or 157%, from $14.5 million in 2016 to $37.2 million in 2017. The increase was primarily due to a $19.0 million increase in third party costs related to advancing our current clinical programs focused on CRC and NHL with our lead product candidate, 5F9, and associated contract manufacturing costs, partially offset by a $3.9 million reduction related to grant funding recognized under the CIRM and LLS grants during 2017. There was also a $4.5 million increase in our other preclinical and discovery programs costs as we expanded our immuno-oncology efforts. In addition, personnel-related costs, including stock-based compensation, increased by $3.0 million as a result of increased headcount.

The following tables summarize the period-over-period changes in research and development expenses for the periods indicated:

	Year Ended December 31, 2016	2017	Increase/ (Decrease)
		(In thousands)	
Product-specific costs:			
5F9	$ 8,838	$ 27,873	$ 19,035
Grant funding reimbursement	—	(3,861)	(3,861)
Non product-specific costs:			
Stock-based compensation	93	206	113
Personnel-related	3,368	6,258	2,890
Other preclinical programs	2,165	6,698	4,533
Total research and development expenses	$ 14,464	$ 37,174	$ 22,710

General and Administrative Expenses

General and administrative expenses increased by $3.0 million, or 58%, from $5.2 million in 2016 to $8.1 million in 2017. The increase was primarily due to a $1.4 million increase in accounting and consulting expenses, and a $1.3 million increase in personnel-related costs driven by an increase in headcount.

Interest and Other Income, Net

Interest and other income, net increased by $0.3 million from $0.1 million in 2016 to $0.4 million in 2017. The increase was primarily due to $0.3 million in interest income from the investment of the net proceeds from the issuance of our Series A-2 and Series B preferred stock financings completed during 2017.

Liquidity, Capital Resources and Plan of Operations

Since our inception through December 31, 2017, our operations have been financed primarily by net proceeds of $149.4 million from the sale of our preferred stock. As of December 31, 2017, we had $88.1 million in cash, cash equivalents and short-term investments, and an accumulated deficit of $69.4 million.

Our primary use of cash is to fund operating expenses, which consist primarily of research and development expenditures related to our lead product candidate, 5F9, and to a lesser extent, general and administrative expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.

Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements through at least the next 12 months from the date of this offering. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. We will continue to require additional financing to advance our current product candidates through clinical development, to develop, acquire or in-license other potential product candidates and to fund operations for the foreseeable future. We will continue to seek funds through equity or debt financings, collaborative or other arrangements with corporate sources, or through other sources of financing. Adequate additional funding may not be available to us on acceptable terms, or at all. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies.

Further, our operating plans may change, and we may need additional funds to meet operational needs and capital requirements for clinical trials and other research and development activities. We currently have no credit facility or committed sources of capital. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated product development programs.

If we need to raise additional capital to fund our operations, funding may not be available to us on acceptable terms, or at all. If we are unable to obtain adequate financing when needed, we may have to delay, reduce the scope of or suspend one or more of our clinical trials, research and development programs or commercialization efforts. We may seek to raise any necessary additional capital through a combination of public or private equity offerings, debt financings and collaborations or licensing arrangements. If we do raise additional capital through public or private equity offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we are unable to raise capital, we will need to delay, reduce or terminate planned activities to reduce costs. Doing so will likely harm our ability to execute our business plans.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Year Ended December 31,	
	2016	2017
	(In thousands)	
Cash used in operating activities	$(21,815)	$(36,937)
Cash used in investing activities	(1,103)	(63,852)
Cash provided by financing activities	5,026	115,464
Net (decrease) increase in cash and cash equivalents	$(17,892)	$ 14,675

Operating Activities

In 2017, cash used in operating activities of $36.9 million was attributable to a net loss of $44.9 million partially offset by $1.1 million in non-cash charges and a net change of $6.9 million in our net operating assets and liabilities. The non-cash charges consisted of stock-based compensation of $0.7 million and depreciation and amortization of $0.4 million. The change in operating assets and liabilities was primarily due to $4.6 million increase in accounts payable and accrued liabilities resulting from increases in our operating activities, primarily in research and development, and a $2.8 million increase in deferred grant funding due to research grant award payments received. This was partially offset by a $0.6 million decrease in prepaid expenses and other current assets resulting from the timing of prepayments made for research and development activities.

In 2016, cash used in operating activities of $21.8 million was attributable to a net loss of $19.5 million and a net change of $2.7 million in our net operating assets and liabilities, partially offset by $0.4 million in non-cash charges. The non-cash charges consisted of stock-based compensation of $0.3 million and depreciation and amortization of $0.1 million. The change in operating assets and liabilities was primarily due to a $3.9 million decrease in prepaid expenses and a $1.7 million decrease in other assets resulting from the timing of prepayments made for research and development activities, partially offset by a $2.8 million increase in accounts payable and accrued liabilities primarily driven by increases in accrued compensation and our research and development activities.

Investing Activities

In 2017, cash used for investing activities was $63.9 million related primarily to the purchase of short-term investments of $79.7 million from the cash proceeds received from our preferred stock issuance, partially offset by the maturity of investments of $16.0 million.

In 2016, cash used for investing activities was $1.1 million related to capital expenditures on the purchase of property and equipment.

Financing Activities

In 2017, cash provided by financing activities was $115.5 million related to net proceeds of $115.2 million from the issuance of preferred stock and $0.3 million from the issuance of common stock in connection with stock option exercises.

In 2016, cash provided by financing activities was $5.0 million related to net proceeds of $4.6 million from the issuance of preferred stock and $0.4 million from the issuance of common stock in connection with stock option exercises.

Contractual Obligations and Commitments

The following table summarizes our commitments and contractual obligations as of December 31, 2017:

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
	(In thousands)				
Operating lease obligations	$ 4,197	$ 1,101	$ 2,302	$ 794	$ —
Contract manufacturing obligations	37,187	9,688	27,499	—	—
Total	$ 41,384	$ 10,789	$ 29,801	$ 794	$ —

We enter into agreements in the normal course of business with contract research organizations for clinical trials and with vendors for preclinical studies and other services and products for operating purposes which are cancelable at any time by us, generally upon 30 days prior written notice. These payments are not included in this table of contractual obligations.

Contract Manufacturing Agreement

In August 2016 and December 2017, we entered into development and manufacturing agreements with Lonza relating to the manufacturing of 5F9-related products. The August 2016 agreement was amended in November 2017 to provide for the manufacturing of our other preclinical program related products.

Under the 2016 agreement, we are required to pay an annual suite reservation fee in each contract year along with the costs of ingredients, solvents and other components of 5F9 and our preclinical program-related products. The fees under the 2016 agreement are specified in British Pounds and are converted into U.S. Dollars based on the exchange rate as of December 31, 2017.

Our payment obligations under the 2017 agreement will begin in January 2019 and run through the expiration of the agreement, which is expected in December 2021, unless the agreement is extended for at least an additional year. Under the 2017 agreement, we must also pay the costs of ingredients, solvents and other components of 5F9-related products required for the performance of the manufacturing process or services. The potential payments due to Lonza under both the 2016 and 2017 agreements in 2021 are subject to our right to discontinue such manufacturing services and are excluded from the commitments and contractual obligations table above.

License and Collaboration Agreements

In November 2015, we entered into a technology license agreement with Stanford under which Stanford granted us exclusive licenses under certain patents and other intellectual property rights relating to our current product candidates, including 5F9 and non-exclusive licenses under certain other patents and other intellectual property rights to develop, manufacture and commercialize products for use in certain licensed fields, including oncology. We are required to make milestone payments up to $5.6 million in respect of the first three licensed products that successfully satisfy certain clinical and regulatory milestones in the United States, major European countries and Japan. The first such milestone payment of $75,000 was paid to Stanford in February 2018. In addition, we are required to pay Stanford a minimum annual fee and a royalty of a tiered-single digit percentage on net sales of licensed products, reimburse patent-related expenses and share any non-royalty sublicensing income received related to the licensed technology. For more information, see “Business—License and Collaboration Agreements.”

In September 2016, we entered into a collaboration agreement with The University of Texas MD Anderson Cancer Center that grants us access to their immunotherapy platform. The platform provides instrumentation and technical support for cellular and molecular analysis of experimental therapies effects on the immune system in order to gain insight into mechanisms of action and to discover biomarkers to identify patients who are likely to respond to or develop adverse reactions to therapies. Pursuant to the terms of the collaboration agreement, we are required to make quarterly payments of $250,000 for three years.

In January 2017, we were awarded a research grant from CIRM supporting our CRC trial. The CIRM grant stipulates various milestone-based payments to us with the total award of $10.2 million over a period of four years. As of December 31, 2017, we had received $3.8 million under the award. In November 2017, we were awarded a second research grant from CIRM for a separate clinical trial study in AML. The total amount of the research grant awarded was $5.0 million in various milestone-based payments over a period of five years. As of December 31, 2017, we had received $1.1 million under the award. Under the terms of the CIRM grants, we are obligated to pay royalties and licensing fees based on a low single digit royalty percentage on net sales of CIRM-

funded product candidates or CIRM-funded technology. We have the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, we have the option to convert each award to a loan, which option must be exercised on or before ten business days after the FDA notifies us that it has accepted our application for marketing authorization. In the event we exercise our right to convert an award to a loan, we will be obligated to repay the loan within ten business days of making such election, including interest at the rate equal to the three-month LIBOR rate (1.69% as of December 31, 2017) plus zero to 30% per annum that varies depending on the stage of the research and the stage of development at the time the election is made. In the event that we terminate a CIRM-funded clinical trial, we will be obligated to repay the remaining CIRM funds on hand.

In March 2017, we entered into an agreement with LLS regarding our NHL rituximab combination clinical trial. The LLS research grant stipulates various milestone-based payments with a total award of $4.0 million through December 2019. As of December 31, 2017, we had received $1.0 million under the award. We are required to pay LLS certain development and regulatory approval milestone payments, as well as a low single digit percentage royalty on net sales, up to a maximum of $15 million in total.

We have not included these potential contingent payment obligations in the table above as the timing and likelihood of such payments is not known. These payments generally become due and payable only upon achievement of certain development, regulatory or commercial milestones.

Off-Balance Sheet Arrangements

During 2016 and 2017, we did not have any off-balance sheet arrangements as defined in Item 303 of Regulation S-K.

Qualitative and Quantitative Disclosures about Market Risk

Interest Rate Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities. We held cash, cash equivalents and short-term investments of $88.1 million as of December 31, 2017, which consist of bank deposits, money market funds and available-for-sale securities. Such interest-earning instruments carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant for us. Due to the short-term maturities of our cash equivalents and marketable securities, and the low risk profile of our marketable securities, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents and marketable securities.

Foreign Currency Risk

Our expenses are generally denominated in U.S. dollars. However, we have entered into a limited number of contracts with vendors for research and development services with payments denominated in foreign currencies, including the British Pound. We are subject to foreign currency transaction gains or losses on our contracts denominated in foreign currencies. During 2016 and 2017, we incurred foreign currency remeasurement gains (losses) of less than $0.1 million. To date, we have not had a formal hedging program with respect to foreign currency. A 10% increase or decrease in current exchange rates would not have a material effect on our financial results.

Critical Accounting Policies

Our management’s discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles, or U.S. GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets

and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Accrued Research and Development Expenditures

We record accrued expenses for estimated preclinical study and clinical trial expenses. Estimates are based on the services performed pursuant to contracts with research institutions and contract research organizations and clinical manufacturing organizations that conduct and manage preclinical studies and clinical trials on our behalf based on actual time and expenses incurred by them. Further, we accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and make judgments and estimates in determining the accrued balance in each reporting period. If we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not experienced significant changes in our estimates of preclinical studies and clinical trial accruals.

Stock-Based Compensation

We recognize compensation costs related to stock-based awards granted to employees and directors, including stock options, based on the estimated fair value of the awards on the date of grant. We estimate the grant date fair value, and the resulting stock-based compensation, using the Black-Scholes option-pricing model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions to determine the fair value of stock-based awards. These assumptions include:

- *Expected Term*—The expected term represents the period that stock-based awards are expected to be outstanding. The expected term for option grants is determined using the simplified method. The simplified method deems the expected term to be the midpoint between the vesting date and the contractual life of the stock-based awards.
- *Expected Volatility*—Since we have been privately held and do not have any trading history for our common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded biotechnology companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle or area of specialty.
- *Risk-Free Interest Rate*—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of option.
- *Expected Dividend*—We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we used an expected dividend yield of zero.

In 2016 and 2017, stock-based compensation was $0.2 million and $0.7 million, respectively. As of December 31, 2017, we had $5.8 million of total unrecognized stock-based compensation which we expect to recognize over a weighted-average period of 3.5 years.

Historically, for all periods prior to this initial public offering, the fair values of the shares of common stock underlying our share-based awards were estimated on each grant date by our board of directors. In order to

determine the fair value of our common stock underlying option grants, our board of directors considered, among other things, valuations of our common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation.*

The valuations were performed using the OPM Backsolve method. In an option pricing method, or OPM, framework, the backsolve method for inferring the equity value implied by a recent financing transaction involves making assumptions for the expected time to liquidity, volatility and risk-free rate and then solving for the value of equity such that value for the most recent financing equals the amount paid. This method was selected as management concluded that the contemporaneous financing transaction was an arm's-length transaction. Furthermore, as of each of the valuation dates, we were an early stage of development and future liquidity events were difficult to forecast.

Given the absence of a public trading market for our common stock, our board of directors exercised their judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of our common stock, including important developments in our operations, valuations performed by an independent third party, sales of preferred stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, and the lack of liquidity of our common stock, among other factors. After the closing of this offering, our board of directors will determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of the grant. Our board of directors intended all options granted to be exercisable at a price per share not less than the per share fair value of our common stock underlying those options on the grant date.

Based upon the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, the aggregate intrinsic value of options outstanding as of December 31, 2017 was $ million, of which $ million related to vested options and $ million related to unvested options.

Emerging Growth Company Status

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an "emerging growth company" may take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Therefore, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards, and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board issued Accounting Standards Update No. 2016-02, *Leases* (ASU 2016-02) which provides accounting guidance for both lessee and lessor accounting models. The principle of ASU 2016-02 is that a lessee should recognize the assets and liabilities that arise from leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability. For income statement purposes, ASU 2016-02 requires leases to be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. ASU 2016-02 is effective for years beginning after December 15, 2019. Early adoption is permitted. The new standard must be adopted using a modified-retrospective transition and provides for certain practical expedients. We are currently evaluating the effects of the adoption of this ASU on our financial statements.

BUSINESS

Overview

We are a clinical-stage immuno-oncology company focused on developing novel checkpoint therapies to activate macrophages in the fight against cancer. We founded Forty Seven based on the insight that blocking CD47, a key signaling molecule that is overexpressed on cancer cells, renders tumors susceptible to macrophages. By harnessing macrophages, we believe that our lead product candidate, 5F9, dosed as a monotherapy or in combination with marketed cancer therapies, can transform the treatment of cancer. 5F9 has demonstrated promising activity in five Phase 1b/2 clinical trials in which we have treated over 190 relapsed or refractory cancer patients with solid or hematologic tumors. We hold worldwide rights to all of our product candidates.

We focus our efforts on targeting the CD47 pathway as a way to engage macrophages in fighting tumors. Macrophages function as first responders, swallowing foreign and abnormal cells, including cancer cells, and mobilizing other components of the immune system including T cells and antibodies. Cancer cells use CD47, a “don’t eat me,” signal, in order to evade detection by the immune system and subsequent destruction by macrophages. Overexpression of CD47 is common to nearly all types of tumors and is also correlated with poor prognosis in multiple cancers including AML, CRC, gastric cancer, lung cancer, NHL and ovarian cancer. Despite the central role of macrophages as cell-eating scavengers and first responders, the pharmaceutical industry is only beginning to bring this key group of cells into the fight against cancer.

Our company was founded by leading scientists at Stanford University who uncovered the fundamental role of CD47 in cancer evasion. They discovered that CD47 sends out a “don’t eat me” signal to macrophages. This has been supported by multiple lines of evidence, including elevated levels of CD47 in a wide range of cancer cells and an observed correlation of a decrease in survival in patients with high levels of CD47.

Preclinical work performed in the laboratory of our co-founder, Irv Weissman, at Stanford University demonstrated that:

- Blocking the CD47 “don’t eat me” signaling pathway leads to elimination of many types of tumors and increased survival;
- Boosting an “eat me” signal found on cancer cells using therapeutic antibodies results in a synergistic effect with blocking CD47; and
- Macrophages digest cancer cells in a process called phagocytosis and present tumor-specific antigens that can activate T cells against the cancer, thus creating the potential for synergy with T cell checkpoint inhibitors.

Our clinical trials are investigating three types of CD47 therapy: as a monotherapy, in combination with therapeutic antibodies, and in combination with checkpoint inhibitors, in a wide variety of tumors, including both solid and hematological cancers.

The targeting of CD47 to make cancer cells susceptible to macrophages, a component of the innate immune system, is analogous to the approach that has been applied with checkpoint inhibitors and T cells, a component of the adaptive immune system. In less than five years on the market, T cell checkpoint inhibitors have become frontline therapies for certain cancers and we estimate that they generated over $9 billion in sales in 2017. Despite the success of T cell checkpoint inhibitors, these therapies have been shown to be effective only in a subset of tumors, highlighting the need for additional therapies. Similar to the way cancer cells overexpress PD-L1 to avoid attack by T cells, cancer cells overexpress CD47 as a way to avoid destruction by macrophages. We believe targeting CD47 represents a compelling and analogous approach.

Our lead product candidate, 5F9, is a humanized IgG4 subclass monoclonal antibody against CD47 that is designed to interfere with recognition of CD47 by the SIRPa receptor on macrophages, thus blocking the “don’t

eat me" signal. The design of 5F9 combined with our proprietary dosing regimen overcomes the toxicity limitations of previously tested anti-CD47 therapies developed by others. Across all study populations, 5F9 has been well tolerated with no MTD observed in any study despite dosing up to 45 mg/kg. The most common treatment-associated effects observed to date were the expected CD47-mechanism-based effects on red blood cells which led to a temporary and reversible anemia. Other reported treatment related adverse events include infusion reactions, headache, fatigue, chills, fever and nausea. The majority of these adverse events were mild to moderate severity and were generally easily managed. See "Business—Our Lead Product Candidate, 5F9—Safety Profile of 5F9."

We have treated over 190 relapsed or refractory cancer patients with 5F9 both as a monotherapy and in combination with therapeutic antibodies such as rituximab and cetuximab. While the primary goal of our trials has been to demonstrate safety, we also observed early signs of clinical activity in multiple tumor types.

In our ongoing trials, 5F9 treatment has demonstrated biological responses and multiple cases of stable disease in Phase 1 as a monotherapy for patients with refractory AML. In biologic responders, we confirmed the presence of macrophages in tumor tissues and we observed that other components of the immune system, including T cells, had been recruited. In our studies of 5F9 as a monotherapy in solid tumors, such as CRC and ovarian cancer, we observed stable disease and, in some cases, tumor shrinkage leading to objective responses.

We are also investigating 5F9 as a monotherapy in ovarian cancer and other solid tumors. In a Phase 1 trial of 5F9, we observed confirmed partial responses in 2 out of 9 evaluable patients in a cohort with ovarian cancer receiving either 20 mg/kg or 30 mg/kg of 5F9, as of February 2018. Both were heavily pre-treated patients failing seven or more previous treatment regimens. One of these patients had a durable partial response of more than six months in duration. We continue to investigate the potential of 5F9 in an expanded cohort of more than 15 patients with ovarian cancer.

In addition to continuing our trials using 5F9 as a monotherapy, we are also pursuing multiple trials of 5F9 in combination with therapeutic cancer antibodies in order to test the synergistic potency of these combinations. We believe that we can enhance the effect of 5F9 on cancer by using therapeutic antibodies that bind cancer cells to present an "eat me" signal to macrophages. Hence, we are combining 5F9 with cancer-cell-binding antibodies such as rituximab and cetuximab. Based on our preclinical research and on publications by academic groups, we believe that this combination of an "eat me" signal by these antibodies and the blocking of a "don't eat me" signal by 5F9 could be highly effective. We are conducting a Phase 1b/2 combination trial using 5F9 and rituximab in patients with relapsed and refractory NHL. As of February 2018, 22 patients with refractory NHL have been evaluated and 11 (50%) have had an objective response during the dose finding study of 5F9 in combination with rituximab. In 6 (27%) of these patients, we observed a complete response, an uncommon therapeutic finding for such a heavily pre-treated population. Based on our application summarizing the early NHL trial data, the FDA granted Fast Track designations to 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL in April 2018. Final results from this trial are expected in early 2019. We are also conducting a Phase 1b/2 combination clinical trial using 5F9 and cetuximab in patients with CRC. Results from this trial are expected in the first half of 2019.

We believe there is a strong rationale to combine 5F9 and T cell checkpoint inhibitors and we plan to initiate combination clinical trials in both solid and hematological tumors. 5F9 induces a potent anti-tumor T cell response by enabling macrophages to ingest cancer cells and present antigens derived from these cancer cells to T cells. Thus, we believe the combination of a T cell checkpoint inhibitor with 5F9 is likely to further enhance an anti-tumor T cell response and to further mobilize both the innate and adaptive immune systems to eliminate cancer.

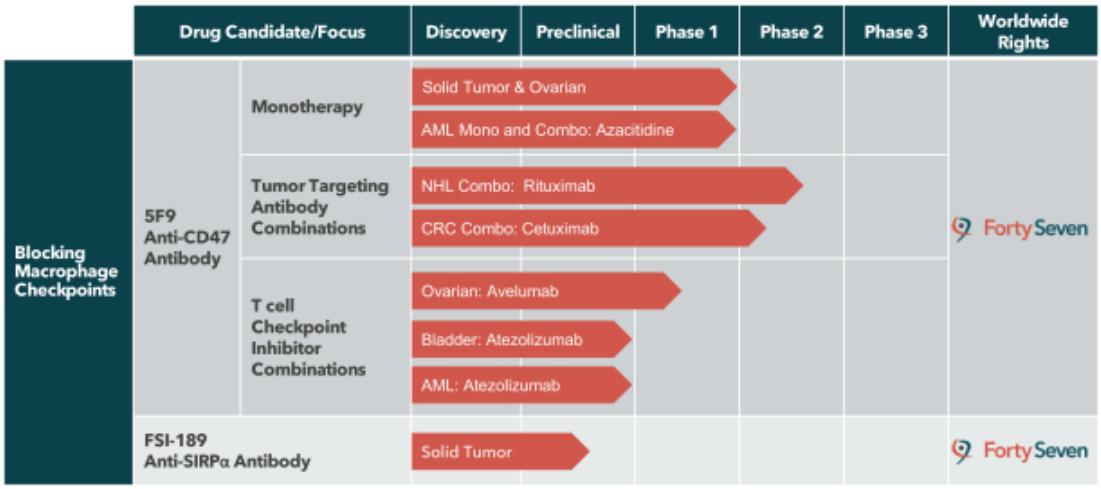
In early 2018, we announced collaborations with two pharmaceutical industry partners combining 5F9 with PD-L1 checkpoint inhibitors, while retaining full economic rights to our products. We are collaborating with

Merck KGaA on the combination of 5F9 with BAVENCIO (avelumab) in ovarian cancer patients; and Genentech, a member of the Roche Group, on the combination of 5F9 and TECENTRIQ (atezolizumab) in patients with bladder cancer and in patients with AML. The avelumab combination trial has started and we expect to dose the first patient by July 2018. We believe the combination trial with atezolizumab will be initiated in early 2019.

Our company was founded by leading scientists at Stanford University who uncovered the fundamental role of CD47 in immune regulation and applied these findings to the field of immuno-oncology. We have an exclusive license to this technology and to our lead product candidate, 5F9, from Stanford. Our goal is to accelerate regulatory approval of 5F9 through execution of multiple clinical trials in parallel to identify areas of highest efficacy. We have assembled a team of executives with broad industry experience in biologics and other therapeutics, as well as strong academic and clinical backgrounds. Our management team has worked for pharmaceutical companies such as Abbott Laboratories, Amgen, Genentech, Gilead, Janssen Global Services, LLC, PDL Biopharma, Inc. and Sandoz Inc. We have funded our operations to date primarily from the issuance and sale of our preferred stock to investors, including Lightspeed Venture Partners, Sutter Hill Ventures, Clarus, GV and Wellington Management Company, and from the receipt of government and private grants. We are eligible to receive up to $19.2 million in grants from CIRM and LLS as financial support for our clinical trials in AML, CRC and NHL, of which $5.9 million has been received through December 31, 2017.

Our Development Pipeline

The following table summarizes our development programs, target indications and current stages of development.



Strategy

Our goal is to transform the treatment of cancer by leveraging our scientific expertise and lead product candidate to engage macrophages to help patients defeat their cancer.

Our strategy includes the following components:

- ***Maintain a focus on our core mission of helping patients defeat their cancer.*** By focusing on patients first, we believe we can realize the full potential of our therapies. Our initial efforts are directed at patients with high unmet medical needs, such as those diagnosed with AML, CRC, NHL or ovarian cancer. We believe there are patients with many other types of cancers that our product candidates can help.

- ***Maximize the therapeutic and commercial potential of 5F9 by exploring its treatment of both solid and hematological tumors.*** Based on our understanding of the CD47 SIRPa pathway and data from preclinical animal models, we believe 5F9 has the potential to benefit patients in a broad range of tumor types and in combination with other approved oncology therapeutics. We are currently evaluating 5F9 in five clinical trials and by the end of 2018, we expect to have seven clinical trials underway. These trials will read out in 2018 and 2019 and based on these data we expect to initiate additional trials with 5F9 to support regulatory approval and to explore the use of 5F9 in multiple cancer indications.
- ***Invest early to secure a clinical and commercial supply of 5F9 to mitigate risk and ensure a timely regulatory approval.*** Although 5F9 utilizes standard antibody manufacturing processes, we recognize that any regulatory approval requires experience and expertise in the commercial manufacturing of 5F9. In 2016, we completed a strategic manufacturing agreement with Lonza, a global leader in biologics manufacturing. The multi-year arrangement helps ensure sufficient clinical material for our existing trials and provides a path to generate the required manufacturing information that is part of a BLA and initial commercial supplies.
- ***Pursue collaborative relationships and in-licensing opportunities to help advance and expand our product candidate portfolio.*** In addition to our internal drug discovery and development efforts, we plan to identify and pursue strategic collaborative relationships, partnerships and in-licensing opportunities to enhance the development of our current programs and access additional novel product candidates. As examples, in January 2018 we announced clinical collaborations with both Merck KGaA and Genentech to explore the utility of 5F9 in combination with approved checkpoint inhibitors.
- ***Prepare for an active role in commercialization in the United States while considering opportunities to engage with partners to access commercialization capabilities outside the United States.*** We have worldwide rights to 5F9. If 5F9 receives marketing approval in the United States, we intend to commercialize it with our own focused, specialty sales and marketing organization. We may explore partnering with a third party to commercialize and market 5F9 in certain geographies.
- ***Leverage our knowledge and expertise in immune system and cancer biology to develop a pipeline of novel cancer therapeutics.*** We intend to utilize CD47 and its associated immune activation pathways to their fullest potential to help patients defeat their cancer. This includes the development of our existing programs and the pursuit of new programs in the future.

Scientific Background

The Role of Macrophages in the Treatment of Cancer

The innate and adaptive components of the human immune system form a complex organization of tissues, cells and proteins that serve to protect the body from invading pathogens. For the body to mount an effective response to a foreign cell or a cancer cell, the innate and adaptive immune systems must generally work in concert.

Macrophages, a key component of the innate immune system, serve as a first line of immune defense and initiate an immune response based on non-specific signals of foreign or abnormal cells. Macrophages also play a key role in alerting cells of the adaptive immune system to the presence of potential targets such as cancer cells. By making cancer cells susceptible to macrophages, we believe that our therapeutic candidates can be effective both as a monotherapy and in combination with other immunotherapies, such as the PD-1/PD-L1-directed and CTLA-4-directed checkpoint inhibitors.

The Role of Macrophages in the Innate and Adaptive Immune Response

The innate immune system, of which macrophages are a key component, serves as the first line of immune defense. Macrophages specialize in engulfing and digesting cellular debris, foreign substances, invading

microorganisms and other cells. Macrophages determine what to attack by recognizing certain “eat me” signals common to pathogens or cancer cells.

Macrophages also play a key role in alerting highly-specialized cells of the adaptive immune system of the presence of potential targets, including cancer cells. Although these highly specialized adaptive immune cells take longer to mobilize, they are capable of providing long-term, effective protection against specific antigens and, importantly, can recall antigens to which they have previously been exposed. As first responders, macrophages swallow the abnormal cells in a process called phagocytosis, digest them and recruit and activate the second line of defense, the adaptive immune system.

Interfering with Suppression of Immune Signaling Pathways

A critical capability of both the innate and adaptive immune systems is the ability to distinguish cells that are normally found in the body from foreign invaders. Components of both immune systems rely on the presence of certain surface proteins on cells that serve as markers for normal cells to prevent immune attacks. For the innate immune system, CD47 is expressed on cells throughout the body and functions as a “don’t eat me” signal to prevent attack by macrophages. Similarly, for the adaptive immune system, PD-L1 expression prevents attack by T cells.

Recent developments in the field of immuno-oncology have demonstrated that interfering in the PD-L1-based immune suppression system allows the adaptive immune system to attack cancer cells, resulting in significant reduction in tumor burden and increasing overall survival in some cancers. These therapies are generally referred to as checkpoint inhibitors and include both therapies that target PD-1 or PD-L1 such as nivolumab, pembrolizumab, atezolizumab, durvalumab and avelumab as well as therapies such as ipilimumab that target another checkpoint known as CTLA-4. These agents, all of which target the adaptive immune system, have resulted in remarkable efficacy in some patients and are the focus of over 1,300 active clinical trials.

To date, there have been no therapies approved that target the CD47 checkpoint of the innate immune system. Preclinical data have demonstrated that binding by a CD47 antibody increases antigen presentation by macrophages and stimulates the development of anti-tumor cytotoxic T cell responses. We believe that by targeting CD47 and activating the macrophage and other components of the innate and adaptive immune system, we can create a new class of therapies with the potential to treat multiple types of solid and hematological tumors.

The below table outlines our macrophage-focused approach targeting the innate immune system as compared to T cell checkpoint inhibitors targeting the adaptive immune system.

	T cells	Macrophages
Immune System Targeted	Adaptive immune system	Innate immune system
Percentage of Tumor Infiltrating Immune Cells	10-20%	20-40%
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

The Role of CD47 in the Treatment of Cancer

There are two opposing mechanisms that macrophages rely on to determine whether to attack a cell: one set of markers found on some cells, including bound IgG and calreticulin, triggers an “eat me” signal; the other, centered around CD47, found on both healthy cells as well as many cancer cells, sends a “don’t eat me” signal.

This “don’t eat me” signal is essential to prevent macrophages from attacking. Macrophages recognize CD47 through a receptor, SIRPa, that can specifically bind to CD47. Binding of SIRPa receptors on macrophages to CD47 on cancer cells prevents macrophages from attacking and digesting these cancer cells. Macrophages only remove cells whose balance of “eat me” signals outweigh the CD47 “don’t eat me” signals.

Nearly all types of tumors overexpress CD47 as a way to avoid the innate immune system. Sending this “don’t eat me” signal prevents the initial attack by macrophages and other phagocytic cells. Because these cancer cells are not digested, the macrophages cannot present components of the cancer cells to the adaptive immune system thereby preventing the activation of T cells that could specifically target them. Expression of CD47 by cancer cells can thus render these cells invisible to innate immune recognition. Interfering with CD47 binding to SIRPa has the potential to activate an immune response to cancer cells that is upstream of current checkpoint inhibitors that target PD-1/PD-L1 or CTLA-4. As shown in the following figure the overexpression of CD47 in many types of cancer has been demonstrated by a variety of scientific techniques.

CD47 Overexpression in Cancer Compared to Normal Tissue

	RNA	Protein Immuno-histochemistry	Protein Western Blot	Protein Flow Cytometry
Pancreatic Cancer	✓	✓		
Lung Cancer	✓		✓	✓
Ovarian Cancer	✓	✓	✓	
Laryngeal Cancer	✓	✓	✓	
Stomach Cancer				✓
Kidney Cancer				✓
Colon Cancer				✓
Acute Myeloid Leukemia				✓
Non-Hodgkin’s Lymphoma				✓
Acute Lymphoblastic Leukemia				✓

Overexpression of CD47 is associated with poor prognosis in multiple cancers including AML, gastric cancer, lung cancer, NHL and ovarian cancer. In CRC patients with tumors containing high levels of macrophages and low levels of CD47 have increased long-term survival.

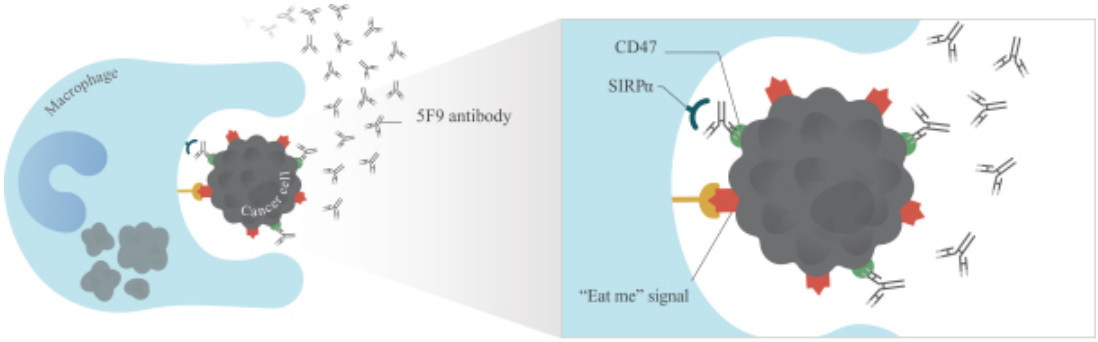
The progression from normal cell to cancer cell involves changes in genes and/or gene expression that can subvert normal cellular control mechanisms, and overexpression of CD47 represents an important checkpoint allowing the cancer cells to survive. In animal models, CD47-blocking antibodies have been shown to inhibit human cancer growth and metastasis by enabling the phagocytosis of cancer cells. CD47-blocking antibodies have been shown to exhibit potent synergy with tumor-specific monoclonal antibodies, such as rituximab, cetuximab and trastuzumab. Thus, we believe CD47 has a strong potential as a therapeutic target for the treatment of a variety of cancers.

Our Lead Product Candidate, 5F9

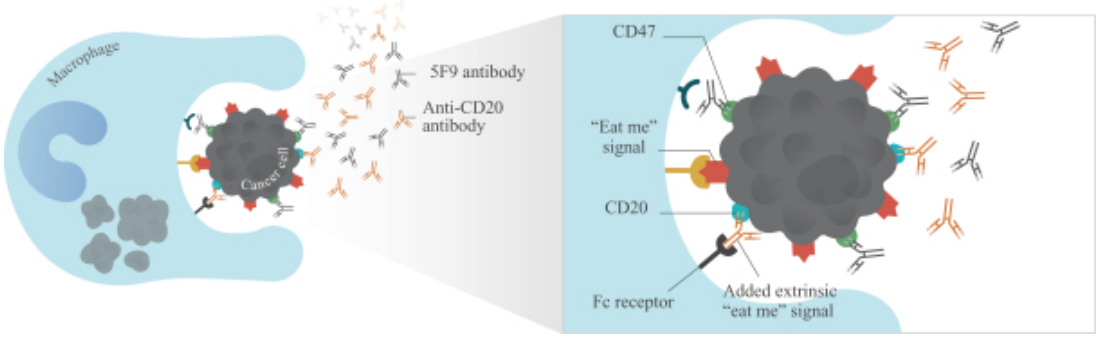
Our lead product candidate, 5F9, is a humanized IgG4 subclass monoclonal antibody against CD47 that is designed to interfere with recognition of CD47 by the SIRPa receptor on macrophages. By blocking this

recognition, 5F9 removes a key self-recognition or “don’t eat me” signal, which allows the innate immune system to attack and dispose of cancer cells. We are currently investigating 5F9 in multiple Phase 1 and Phase 2 trials in various cancers including AML, CRC, NHL and ovarian cancer, as both a monotherapy and in combination with other therapies such as rituximab and cetuximab.

The following figure shows the mechanism of action of 5F9.



5F9 activation of macrophages to attack cancer cells can be further stimulated in combination therapies by supplying a therapeutic antibody that can specifically recognize tumor-specific antigens. By binding to cancer cells, these antibodies become an “eat me” signal to macrophages. There are many tumor-specific antibodies in current clinical practice in oncology, including rituximab, approved for various lymphomas and some types of leukemia; and cetuximab, approved in CRC and certain head and neck cancers. The following figure shows the mechanism of action of 5F9 in combination with a CD20 therapeutic antibody, such as rituximab.



Importantly, most normal cells lack an “eat me” signal and are therefore unaffected by the blocking of CD47.

5F9 Clinical Trials

5F9 monotherapy trials started in 2014 at a clinical trial center at Stanford University and in 2015 at a clinical trial center at Oxford University. The clinical trials with 5F9 and tumor targeting antibody combinations started in 2016 at multiple trial centers in the United States and United Kingdom. We currently have trials taking place in over 20 clinical centers in the US and the UK. We have treated over 190 relapsed or refractory cancer patients in the Phase 1 trials with 5F9 both as a monotherapy and in combination with therapeutic antibodies such as rituximab and cetuximab. The primary endpoint of these trials was to determine the MTD and dose limiting toxicities, or DLTs, in addition to objective anti-tumor responses. No MTD has been achieved in any trial despite maximum tested doses of 45 mg/kg weekly. The MTD for our trials was defined using the standard Phase 1 trial

definition of being the highest dose level tested that generated a DLT rate of less than 33% in at least 6 evaluable patients. Secondary endpoints of these trials include evaluation of the serum concentrations of 5F9 and measures of clinical activity including how long patients responded to 5F9 and combination therapies, and their overall survival. Because these trials are ongoing, formal statistical analyses have not been conducted.

Our reported results use clinical assessment criteria that are in broad use as standard endpoints in solid tumor and lymphoma trials. These include RECIST 1.1 for ovarian and CRC trials, and the Lugano classification for NHL trials. Per RECIST criteria, a "partial response" is a result in which the tumor shrinks at least 30% without the growth of new tumors and a "complete response" is the abolishment of tumor mass without new tumor growth. Per Lugano criteria, a "partial response" is a result in which the tumor shrinks at least 50% or in which the metabolic activity of the tumor has reduced activity compared to baseline, without the growth of new tumors. A "complete response" is a result with the abolishment of tumor mass or tumor metabolic activity without new tumor growth. Patients with "objective responses" are those with either a partial or a complete response. Per RECIST criteria, a patient with "stable disease" has a tumor size that is between a less than 30% reduction and less than 20% growth without growth of new tumors. Per Lugano criteria, "stable disease" is defined as less than a 50% reduction in tumor size and less than 50% growth or no increase in metabolic tumor activity, without growth of new tumors. In our AML trials, response assessment criteria were per ELN 2017 recommendations. Using these criteria, the best responses we observed were cases of "stable disease", which are defined as patients who lack a partial or complete response yet did not exhibit disease progression. Progression in AML is defined by increases in blast (or cancer) cells and in partial and complete responses there is a substantial reduction in blast cells. In addition, we report "biological responses" that indicate notable biological changes in the bone marrow that were associated with 5F9 therapy but did not meet the definition of a partial or complete response.

5F9 in B-cell Non-Hodgkin's Lymphoma

Combination Trial and Early Signs of Clinical Activity

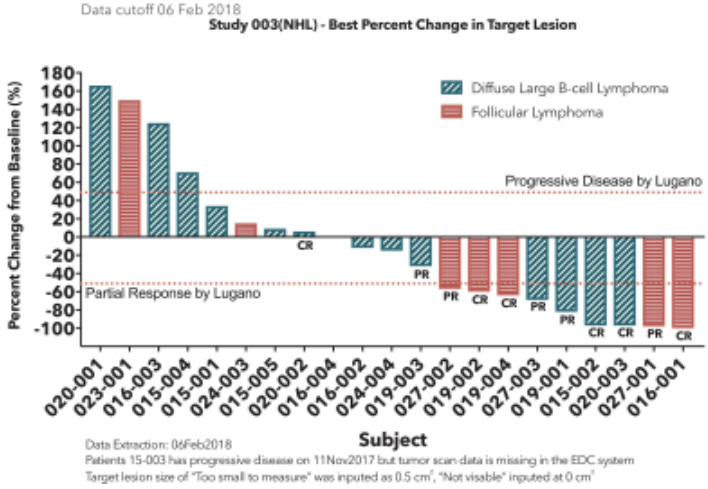
Our most advanced ongoing clinical trial is an open-label, multi-site Phase 1b/2 trial of 5F9 in combination with rituximab in patients with relapsed or refractory NHL. The rationale behind this combination trial is to release the CD47 inhibition of the innate immune system, thus eliminating the "don't eat me" signal, and use rituximab to provide the "eat me" signal through its binding to CD20 on the surface of NHL cells. We began recruitment in November 2016 and as of February 2018 we have enrolled 29 patients and we anticipate enrolling up to 72 patients in this trial. In the Phase 1b portion of this trial, patients received full doses of rituximab with cohorts evaluating escalating doses of 5F9. The Phase 2 portion of this trial has separate treatment arms for relapsed or refractory patients with non-aggressive, or indolent FL, and those with aggressive DLBCL. We expect data from patients in the Phase 2 arm of this trial to become available in early 2019.

As of February 2018, we have obtained clinical response data from 22 patients receiving 10 mg/kg, 20 mg/kg or 30 mg/kg 5F9. Progression of the disease was controlled in 14 patients (64%), and 11 patients (50%) displayed an objective response. Six patients (27%) were reported to have a complete response and 5 patients (23%) were reported to have partial responses. Importantly, the rate of clinical response increased with the 5F9 dosage. Clinical activity was observed in both DLBCL and FL patients. This is notable because these patients all entered the trial after failing multiple lines of previously approved therapies, including rituximab. Particularly, multiple complete remissions have been observed in both DLBCL and FL patients, which are uncommon given the heavily pre-treated nature of these patients. For example, one DLBCL patient had failed four lines of prior therapy and entered the trial with extensive disease that was rapidly progressing. After treatment for eight weeks, this patient achieved a complete response, with no evidence of lymphoma lesions or bone marrow disease.

The figure below shows the preliminary results from a Phase 1b trial of 5F9 in combination with rituximab in relapsed or refractory NHL. Complete and partial response were evaluated by the Lugano criteria, which measures tumor size and metabolic activity.

Response	All Patients n=22	DLBCL n=15	Follicular Lymphoma n=7
Objective Response Rate (ORR)	50% (11)	40% (6)	71% (5)
Partial Response (PR)	23% (5)	20% (3)	29% (2)
Complete Response (CR)	27% (6)	20% (3)	43% (3)
Disease control rate (CR+PR+SD)	64% (14)	60% (9)	71% (5)

Data cutoff 06 Feb 2018



A full 90% of responders had been considered rituximab refractory before dosing. Failure of prior therapies containing rituximab did not prevent patients from responding to the combination of 5F9 and rituximab in this trial. In addition, approximately 90% of the patients who had an initial response continue to respond, suggesting durability. For example, 1 patient continues in complete remission after one year on treatment. While these results represent early data from a limited number of patients, the clinical activity reported is comparable to the durable response rates (responses of greater than eight months duration) seen with other approved therapies such as the CAR-T product YESCARTA (axicabtagene ciloleucel) in DLBCL and the kinase inhibitor ALIQOPA (copanlisib), in FL. Furthermore, 5F9 has been well tolerated to date with no MTD observed, is easy to administer and in the majority of responding patients begins to show clinical activity at the first assessment made at eight weeks. The most common treatment-associated effects observed to date were the expected CD47-mechanism-based effects on red blood cells, which led to a temporary and reversible anemia. Other reported treatment-related adverse events include infusion reactions, headache, fatigue, chills, fever and nausea. The majority of these adverse events were mild to moderate in severity and were generally easily managed. See

"Safety Profile of 5F9." These attributes may make 5F9 suitable for a broad range of patients. Based on our application summarizing the early NHL trial data, the FDA granted Fast Track designations to 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL in April 2018. We expect results from the Phase 2 arm of this trial to be available by early 2019.

Market Opportunity

We believe there is a broad market opportunity for 5F9 in the treatment of NHL. B-cell NHL is a diverse group of cancers derived from B cells. The American Cancer Society estimates that 74,680 people will be diagnosed with NHL in the United States in 2018. The natural progression of NHL varies widely across multiple forms, including aggressive forms such as DLBCL and more slowly growing or indolent forms such as FL, which according to a publication in Frontiers in Oncology in 2013, account for 31% and 22% of all NHL cases, respectively. Without treatment, survival of aggressive NHL, such as DLBCL, is only a few months in duration.

As with other B cell lymphomas, FL and DLBCL cells express CD20 on the cell surface. Monoclonal antibodies targeting CD20 are a key component of current therapy for B cell lymphomas. Rituximab was the first anti-CD20 monoclonal antibody developed and approved for the treatment of B cell NHL. The addition of rituximab to combination chemotherapy could result in an approximately 10-15% overall increase in survival at one year in patients of all ages. Unfortunately not all patients respond to rituximab and of those that initially responded after treatment with rituximab as a monotherapy, but subsequently relapsed, a study has shown that approximately 60% are resistant to rituximab.

In 2017, a new approach to treating DLBCL known as CAR-T cell therapy was approved. This therapy requires removing blood stem cells from patients, genetically modifying them in the lab to attack DLBCL cells and transplanting them back into the patient, a process which can take several weeks. Although this approach has had some success, there remain significant safety limitations. This therapy is not available to patients who have highly proliferative disease, who cannot wait for treatment, or who cannot tolerate the transplantation procedure. We believe that 5F9 will not have these limitations.

5F9 in Ovarian Cancer

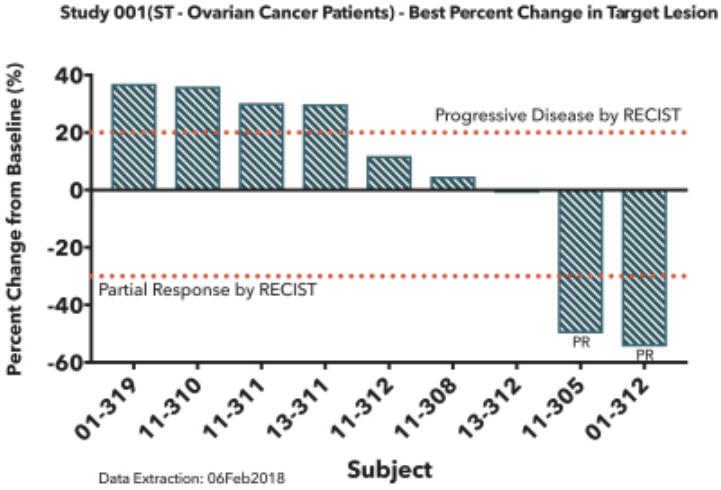
Monotherapy Trial and Early Signs of Clinical Activity

The first in human trial of 5F9 as a monotherapy was a multi-arm trial designed to test the safety and tolerability and to determine dosing in patients with advanced solid tumors. The trial began in August 2014, and since then we have observed confirmed partial responses in 2 out of 9 evaluable patients in a cohort with ovarian cancer receiving either 20 mg/kg or 30 mg/kg of 5F9, as of February 2018. Both were heavily pre-treated patients failing seven or more previous treatment regimens. One of these patients had a durable partial response of more than six months in duration. We continue to investigate the potential of 5F9 in an expanded cohort of more than 15 patients with ovarian cancer from which we anticipate having data by the end of 2018.

The following figure shows responses in a Phase 1 trial of 5F9 as a monotherapy in ovarian cancer.

Best Response	Ovarian Cancer Patients (n=9)
Objective Response Rate (ORR)	22% (2)
Partial Response (PR)	22% (2)
Complete Response (CR)	0% (0)
Stable Disease (SD)	33% (3)
Disease control rate (CR+PR+SD)	56% (5)
Fall in CA125 >30%	44% (4)

Data cutoff 06 Feb 2018



In January 2018, we announced a clinical collaboration with Merck KGaA to test 5F9 in combination with the T cell checkpoint inhibitor avelumab in ovarian cancer patients. The rationale for the collaboration is based on these data and additional preclinical work showing that avelumab enhances cancer cell phagocytosis *in vitro*. We believe this enhancement is due to avelumab binding PD-L1 on the cancer cells and stimulating phagocytosis via binding of the IgG1 isotype antibody to macrophage receptors.

Market Opportunity

The Centers for Disease Control and Prevention, or CDC, estimates that ovarian cancer is the fifth leading cause of cancer death in women in the United States with over 20,000 women in the United States diagnosed with ovarian cancer and approximately 14,000 die from this disease each year. The International Agency for Research on Cancer estimates that, worldwide, there were approximately 225,000 cases of ovarian cancer leading to 140,000 deaths yearly.

Surgery and cytotoxic chemotherapies are widely used to treat ovarian cancer; however, the outcomes have changed little over the last several decades. According to the National Cancer Institute, the relative five-year survival rate has improved only marginally from 43.8%, observed from 2001 to 2007, to 46.5%, observed from

2007 to 2013. Treatment of patients with advanced, relapsed ovarian cancer with a combination of gemcitabine and carboplatin increased the progression free survival to 8.6 months from 5.8 months with carboplatin alone but has had no significant effect on overall survival. Recently a number of products that target poly ADP ribose polymerase, or PARP, a specific component of a DNA repair pathway, have been approved for use in ovarian cancers. These products include olaparib, rucaparib and niraparib. Research published in Molecular Oncology has demonstrated that the efficacy of these products is greatly enhanced in the subset of 5-15% of ovarian cancers with mutations in the BRCA1 and BRCA2 genes. Given the historical lack of improvement in survival rates and limitations of PARP therapies for the majority of cancer patients, we believe 5F9 has the potential to deliver an effective new class of therapy to address this unmet medical need.

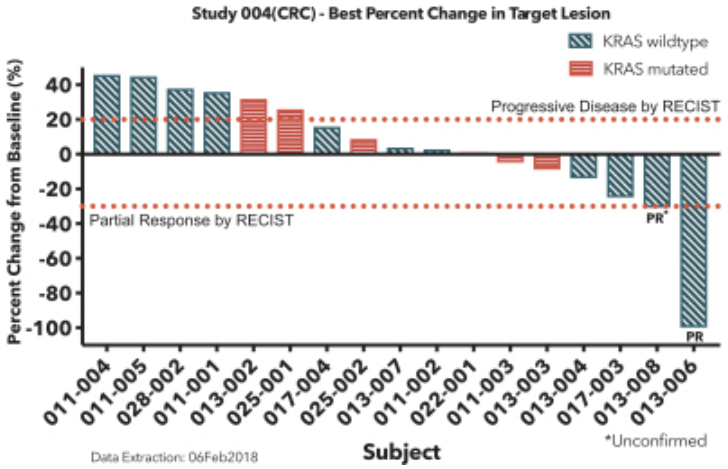
5F9 in Colorectal Cancer

Combination Trial and Early Signs of Clinical Activity

We are investigating the combination of 5F9 and cetuximab in an open-label Phase 1b/2 trial in patients with advanced relapsed or refractory solid tumors, including CRC. The trial began in December 2016, and as of February 2018, we have enrolled 28 patients at multiple sites in the United States. The first arm of this trial is a dose escalation stage with doses of cetuximab increasing up to the standard approved dose level combined with increasing doses of 5F9. Data from the 10 mg/kg, 20 mg/kg and 30 mg/kg cohorts of the Phase 1b portion of the trial is available for 17 patients with CRC. Of these 17 patients, 2 (12%) had a partial response and 9 (53%) had stable disease at eight weeks. Importantly, at time of data cutoff in February 2018 the initial responding patient had maintained a durable response over five months that was ongoing. This trial is ongoing and we expect data from patients in the Phase 2 arm of this trial to become available in the first half of 2019. The following figure shows the responses in patients from this trial.

Best Response	CRC Patients n=17
Objective Response Rate (ORR)	12% (2)
Partial Response (PR)	12% (2)
Complete Response (CR)	0%
Stable Disease (SD)	53% (9)
Disease control rate (CR+PR+SD)	64% (11)

Data cutoff 06 Feb 2018



Market Opportunity

According to CDC estimates, CRC is the second leading cause of cancer deaths in the United States. The National Cancer Institute estimates that there were 135,430 new cases of CRC and 50,260 CRC related deaths in the United States in 2017. Almost 35% of the patients with a new diagnosis of CRC will die within five years. The risk of CRC increases with age, with 90% of cases diagnosed in individuals 50 years of age or older. Despite effective screening, leading to a reduction in the mortality from CRC, the number of cases remains high and is expected to increase worldwide to 2.2 million by the year 2030.

Treatment of CRC typically involves the use of cytotoxic chemotherapy and radiation. Treatment with anti-epidermal growth factor receptor or EGFR antibodies as a monotherapy or in combination with chemotherapy has been shown to be effective in a subset of CRC patients, however according to a publication in Current Oncology in 2010, over 40% of patients do not respond to anti-EGFR antibody therapies and of those that do, resistance often develops. Specifically, cetuximab is ineffective in patients who have a mutation in the RAS gene, which represents approximately 40% of all patients. In addition, after initial treatments, the currently approved therapies for advanced CRC patients, such as regorafenib and trifluridine/tipiracil (TAS-102), have significant toxicities, negligible response rates (less than 2%) and only a minimal survival benefit, increasing median survival by 1.4 to 1.8 months. We believe that there is an unmet medical need for a treatment option that improves outcomes for patients with CRC.

5F9 in Acute Myeloid Leukemia

Monotherapy Trial with Signs of Biologic Activity

We are conducting a Phase 1 monotherapy trial in patients with relapsed or refractory AML in collaboration with the University of Oxford at multiple sites in the United Kingdom. Leukemic cells, called blasts or blast precursors, are the main driver and indicator of disease burden in AML. The trial began in November 2015, and reductions in the number of blast cells in patient bone marrow samples have been observed in 6 of the 14 patients (43%) in cohorts receiving 10 mg/kg or higher doses of 5F9, as of February 2018. One of these patients had prolonged stable disease for 11.8 months on study before progressing, which is more than double the average life expectancy for this refractory patient population. This patient had a significant increase in T cells in the bone marrow during treatment, suggesting that 5F9 may have activated the adaptive immune system. Based in part on these data and similar observations in preclinical models, in January 2018, we announced a clinical collaboration with Genentech to initiate a clinical trial exploring a combination of 5F9 with atezolizumab in patients with AML. We have received orphan drug designation from both the FDA and the EMA for AML.

Market Opportunity

AML is a hematologic cancer characterized by excessive proliferation of myeloid stem cells and their failure to properly differentiate into mature blood cells. AML is the second most common subtype of leukemia in adults. The American Cancer Society estimates an incidence of approximately 19,500 new cases in the United States in 2018. AML is generally a disease of elderly people, with more than 60% of diagnosed patients being older than 60 years. According to Cancer Research UK, the average five-year survival rate for patients with AML is 20%, but there are significant differences in prognosis depending on several factors, including the age of the patient and the presence of co-morbidities at the time of diagnosis. For patients under the age of 45, the five-year survival rate is approximately 57%, while for those over the age of 65 it is only 6%. There are likely multiple reasons for this difference, including the ability of younger patients to tolerate more aggressive therapy.

Current first-line treatments in AML typically involve aggressive chemotherapy, including alkylating agents and cytarabine potentially followed by stem cell transplantation, for younger patients with the aim to induce and then maintain long-term remission. This therapy is not recommended for older patients or patients with comorbidities, who are often not treated at all or are treated with low dose cytarabine or azacitidine. There is a single biologic, MYLOTARG (gemtuzumab ozogamicin), approved by the FDA for AML. Mean survival in AML patients over 75 years of age treated with gemtuzumab ozogamacin as a monotherapy was 4.9 months versus 3.6 months for those treated with the best supportive care. Significant myeloid and liver toxicities have also complicated the use of gemtuzumab ozogamacin in patients. Other more recently approved therapeutics for AML target subsets of patients with tumors containing specific mutations such as RYDAPT (midostaurin) by Novartis for those with FLT3 mutations and IDHIFA (enasidenib) by Celgene for those with mutations in IDH2. Despite these advancements, we believe there is a significant need for a safe, broadly effective AML treatment. CD47 is expressed to a higher degree in AML cells, including leukemia stem cells, than in normal blood cells, making AML an attractive potential indication for 5F9.

Planned Trials: Combinations with Checkpoint Inhibitors

We believe there is a strong rationale to combine 5F9 with T cell checkpoint inhibitors. 5F9 induces a potent anti-cancer T cell response by enabling macrophages to ingest cancer cells and present antigens derived from these cancer cells to T cells. Thus, the combination of a T cell checkpoint inhibitor with 5F9 is likely to further enhance an anti-cancer T cell response and to further mobilize both the innate and adaptive immune systems to eliminate cancer. In this context, we and our partner Genentech are planning to test the safety and clinical activity of 5F9 in combination with atezolizumab, a monoclonal antibody targeting PD-L1, an adaptive immunity checkpoint, in bladder cancer. We believe that this trial will help us test a key hypothesis by determining whether 5F9 can further enhance the anti-tumor activity of checkpoint inhibitors that already have activity as a monotherapy. In addition, 5F9 will be combined with atezolizumab in AML patients. Our rationale for this combination is the observed increase in T cells in the bone marrow of an AML patient during 5F9 monotherapy treatment. We believe the presence of increased T cells may indicate an activation of the adaptive immune system which is the target of T cell checkpoint inhibitors. Atezolizumab has received regulatory approval for the treatment of advanced urothelial carcinoma and non-small cell lung cancer.

We also partner with Merck KGaA to test the safety and clinical activity of 5F9 in combination with avelumab, an antibody targeting PD-L1 in patients with ovarian cancer. The combination of 5F9 and avelumab was selected based on the unique dual ability for avelumab to enhance both a T cell response as a checkpoint inhibitor and serve as a tumor-targeted antibody. Since PD-L1 is expressed on cancer cells, antibodies that target PD-L1 could serve as a tumor-targeting antibody, similar to rituximab and cetuximab in CRC and NHL, respectively. However, an active Fc receptor capable of inducing antibody-dependent cellular phagocytosis is required. Avelumab is the only FDA approved T cell checkpoint inhibitor targeting PD-L1 that has an active IgG1 Fc receptor. Thus, the combination of 5F9 and avelumab may be a key competitive differentiator for combination strategies of CD47 blocking agents and checkpoint inhibitors. Indeed, our preclinical studies demonstrate that the addition of avelumab to 5F9 significantly enhances macrophage phagocytosis of cancer

cells. The combination of 5F9 and avelumab will be explored in ovarian cancer patients based on preclinical data as well as initial clinical data demonstrating monotherapy activity for both 5F9 and avelumab in this indication.

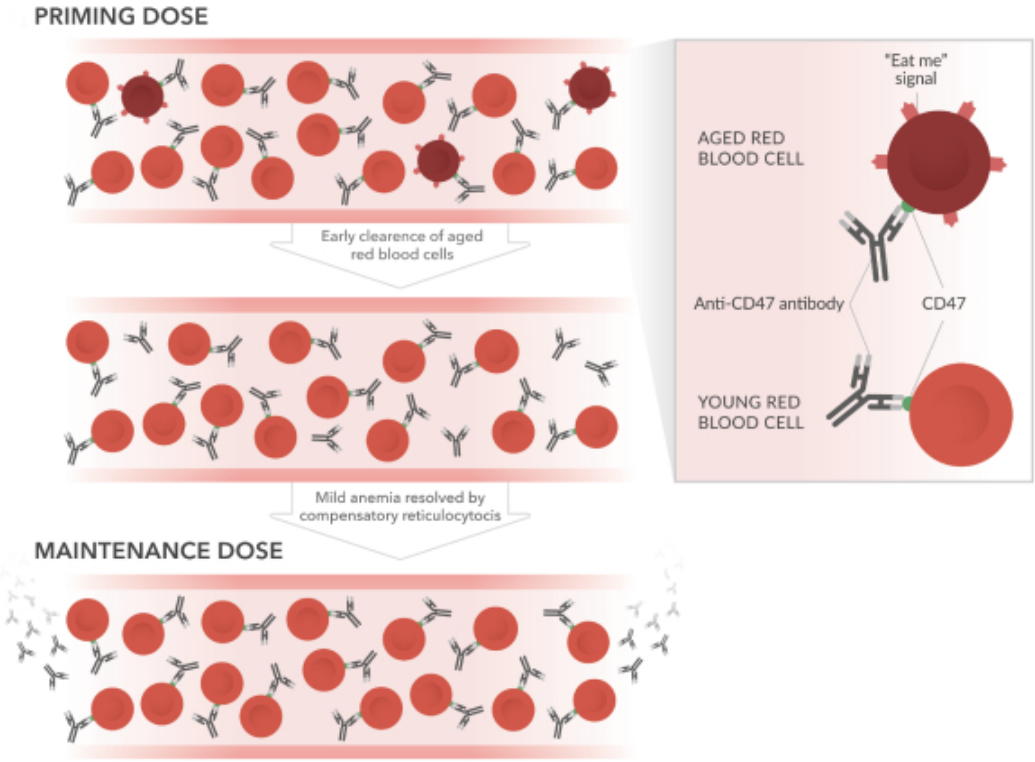
Safety Profile of 5F9

In each of our clinical studies, 5F9 has demonstrated signs of early clinical activity while being generally well-tolerated. The design of 5F9, combined with our proprietary dosing regimen, overcomes the toxicity limitations of previously tested anti-CD47 therapies. Across all study populations, 5F9 has been well tolerated with no MTD observed in any study despite dosing up to 45 mg/kg. The most common treatment-associated effects observed to date were the expected CD47-mechanism-based effects on red blood cells which led to a temporary and reversible anemia. Other reported treatment-related adverse events include infusion reactions, headache, fatigue, chills, fever and nausea. The majority of these adverse events were mild to moderate in severity and were generally easily managed.

Minimizing the Effects on Red Blood Cells

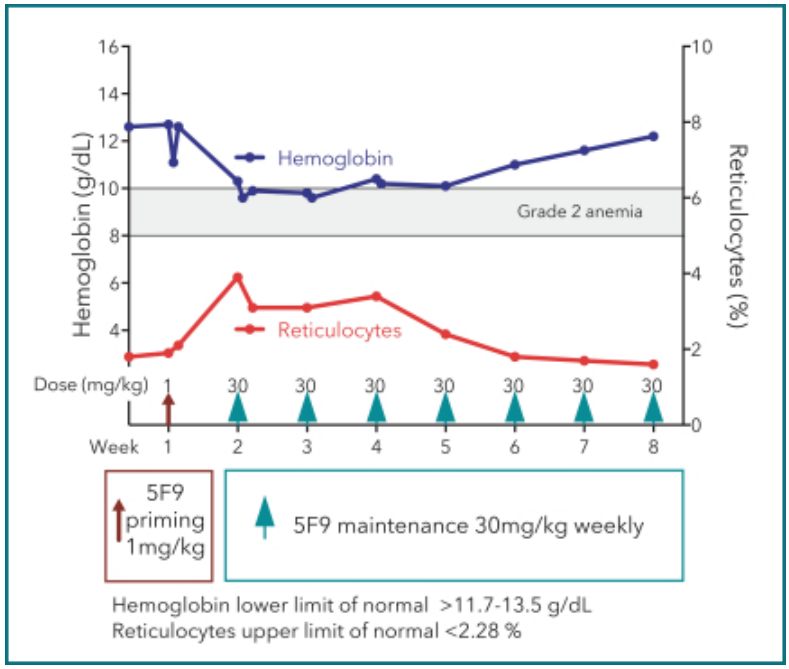
Red blood cells, like other cells in the body, express CD47 as a “don’t eat me” signal to prevent phagocytosis by macrophages. As red blood cells age, the levels of CD47 gradually decrease and the levels of “eat me” signals such as phosphatidylserine or IgG increase such that at some point aged red blood cells are engulfed by macrophages and removed from circulation. The levels of red blood cells in the body, however, are tightly regulated and the removal of aged or damaged red blood cells stimulates the production of new red blood cells. The administration of CD47 antibodies, such as 5F9, would be expected to block the “don’t eat me” signal on red blood cells resulting in premature loss of those aged red blood cells that bear sufficiently high levels of “eat me” signals. Indeed, this predicted loss of red blood cells and the associated anemia has been observed in preclinical studies and clinical trials of 5F9 but it is generally temporary and reversible in nature. The loss of red blood cells is compensated for by reticulocytosis, which is the synthesis of new red blood cells that leads to the gradual resolution of the anemia. Eventually the red blood cell level stabilizes as the average age of red blood cells shifts toward younger cells.

To address this expected anemia, we designed a proprietary dosing regimen into our clinical trials in which clinicians administer a priming dose of 1 mg/kg of 5F9 that is sufficient to eliminate the aged red blood cells and trigger the process of reticulocytosis. A mild anemia with the first priming dose is therefore expected. This priming dose then enables administration of much higher and more efficacious maintenance doses of 30 mg/kg in subsequent weeks that do not induce further clearance of red blood cells. We believe our approach of administering a priming dose followed by maintenance doses is an important element in mitigating the known on-target effect of anemia that results from therapeutic blocking of CD47. The figure below illustrates this sequence.



The initial first-in-human Phase 1 clinical trial of 5F9 was initiated by researchers at Stanford University in 24 patients with relapsed or refractory solid tumors. Eleven patients were treated in Part A of the trial, which was designed as a dose escalation trial with the goal of establishing a priming dose of 5F9 that would be tolerable while also still fully saturating CD47 on red blood cells. After a single dose of 1 mg/kg of 5F9, approximately 90% of CD47 molecules on red blood cells were blocked, whereas at doses of 0.1 mg/kg and 0.3 mg/kg approximately 50% of CD47 molecules were blocked. The 1 mg/kg dose was well tolerated with no drug-limiting toxicities.

Part B of the trial investigated the safety and tolerability of weekly maintenance dosing of 5F9 in 14 patients treated at 1, 10, 20, 30 and 45 mg/kg, each following a single priming dose of 1 mg/kg. The study showed that this dosing regimen results in an early, temporary decline in hemoglobin levels corresponding to mild to moderate anemia during the first two weeks of starting therapy. In many patients, hemoglobin levels return to baseline by week four or later, even with continued treatment with 5F9 at significantly higher doses. The figure below illustrates the physiological response associated with the priming dose in a solid tumor patient.



An additional common treatment-associated effect related to red blood cells is hemagglutination, or the clumping of red blood cells, which we believe is driven by the direct interaction of 5F9 with CD47 on red blood cells. We observe hemagglutination by microscopic examination of a blood sample typically in conjunction with the initial priming or maintenance doses. In the over 190 patients treated with 5F9 across indications, hemagglutination has not been correlated with significant adverse events or other clinical symptoms.

In order to evaluate the clinical risk of hemagglutination and to monitor for any effects this might have on the microvasculature, our Phase 1 monotherapy trial of 5F9 in solid tumor patients included baseline and weekly high resolution retinal imaging studies during the trial. The 163 scans obtained in solid tumor patients did not reveal any treatment related pathology, outside of a solitary, asymptomatic transient abnormal finding on the retina known as a cotton wool spot in a single patient who did not exhibit hemagglutination. We removed the requirement for retinal imaging due to the lack of significant retinal findings in a protocol amendment, which was accepted by the FDA without any related issues being raised.

Patients with AML do not have the bone marrow capacity to stimulate reticulocytosis due to their disease and thus have to rely on blood transfusions to replace aged red blood cells that are eliminated by 5F9 treatment. Hemagglutination continues to be observed in these patients beyond the first or second dose of 5F9 as the transfused blood contains a substantial population of untreated red blood cells. These transfusions have been well tolerated. Similar to solid tumor patients, to date, no clinical consequences have been correlated with hemagglutination.

Other Safety Observations

5F9 has been dosed in over 190 patients with both solid and hematological tumors as of May 2018. Across all study populations, 5F9 has been well tolerated with no MTD observed in any study including in doses of up to 45 mg/kg. The most common treatment-associated effects observed were CD47-mechanism-based effects on red blood cells such as anemia. Other reported treatment-related adverse events include infusion reactions, headache, fatigue, chills, fever and nausea. Common drug-related abnormal laboratory observations have included transient hyperbilirubinemia, transient reticulocytosis and spherocytosis, all of which are consistent with the on-target effect of aged red blood cell clearance by 5F9. Lymphopenia was also observed but not associated with any clinical consequences including infections. These findings were more frequent following the first or second infusion, with substantially fewer drug-related events reported beyond the first 28-day treatment cycle. Infusion-associated reactions including fevers, chills, headache, chest/abdominal/back pain and infusion/hypersensitivity reactions are observed in patients with solid tumors and lymphoma during the initial two doses with 5F9 and generally not with subsequent doses. No consistent adverse events were observed at high or extended exposure and there were no consistent overlapping toxicities with other antitumor antibodies. In addition, no significant immune-mediated toxicities found in other T cell checkpoint inhibitors have been observed. Patients have been treated over six months without increases in safety signals.

Summaries of reported adverse events from the solid tumor and NHL combination trials are presented in the figures below.

Solid Tumor Summary* (n = 48)

Adverse Event Term Patients Treated at 20 (37 patients), 30 (8 patients), or 45 (3 patients) mg/kg weekly	AE Grade				
	Any	1	2	3	4
Anemia	27 (56%)	8 (17%)	14 (29%)	5 (10%)	0
Hemagglutination	20 (42%)	14 (29%)	5 (10%)	1 (2%)	0
Blood Bilirubin Increased/ Hyperbilirubinemia	12 (25%)	3 (6%)	5 (10%)	4 (8%)	0
Thrombocytopenia	6 (13%)	4 (8%)	2 (4%)	0	0
Neutropenia	2 (4%)	1 (2%)	1 (2%)	0	0
Lymphocyte count decreased	10 (21%)	1 (2%)	0	7 (15%)	2 (4%)
Non-cardiac Chest Pain/Chest Pain	1 (2%)	1 (2%)	0	0	0
Headache	24 (50%)	16 (33%)	7 (15%)	1 (2%)	0
Nausea	12 (25%)	10 (21%)	2 (4%)	0	0
Fatigue	30 (63%)	26 (54%)	4 (8%)	0	0
Pyrexia	23 (48%)	20 (42%)	3 (6%)	0	0
Chills	22 (46%)	21 (44%)	1 (2%)	0	0
Photopsia	5 (10%)	5 (10%)	0	0	0
Infusion-related reaction	5 (10%)	2 (4%)	3 (6%)	0	0
AST elevation	2 (4%)	0	0	1 (2%)	1 (2%)
ALT elevation	2 (4%)	0	1 (2%)	0	1 (2%)

* Ovarian expansion cohort not included in analysis

Data cutoff 06 Feb 2018

Phase 1b: 5F9 + Rituximab Summary (n = 22)					
Adverse Event Term All Phase 1b patients (5F9 10 mg/kg to 30 mg/kg weekly + rituximab)	AE Grade related to 5F9 and/or rituximab				
	Any	1	2	3	4
Chills	9 (41%)	4 (18%)	4 (18%)	1 (5%)	0
Headache	8 (36%)	5 (23%)	3 (13%)	0	0
Anemia	7 (32%)	3 (14%)	2 (9%)	2 (9%)	0
Infusion related reaction	7 (32%)	1 (4.5%)	5 (23%)	1 (4.5%)	0
Pyrexia	6 (27%)	4 (18%)	1 (4.5%)	1 (4.5%)	0
Fatigue	5 (23%)	2 (9%)	3 (14%)	0	0
Back pain	3 (14%)	0	3 (14%)	0	0
Myalgia	3 (14%)	3 (14%)	0	0	0
Neutropenia	3 (14%)	2 (9%)	0	0	1 (4.5%)
Thrombocytopenia	3 (14%)	1 (4.5%)	1 (4.5%)	1 (4.5%)	0
Diarrhea	3 (14%)	3 (14%)	0	0	0
Nausea	3 (14%)	3 (14%)	0	0	0
Vomiting	3 (14%)	1 (4.5%)	2 (9%)	0	0
Immune thrombocytopenic purpura	1 (4.5%)	0	0	0	1 (4.5%)
Pulmonary embolism	1 (4.5%)	0	0	1 (4.5%)	0

AE>10% and DLTs regardless of frequency are shown, data cut: 16Jan2018

Pharmacokinetics of 5F9

As part of the Phase 1 solid tumor trial design we measured the concentration of 5F9 in the serum of treated patients at various doses. At doses of 10 mg/kg and above the half-life of 5F9 is approximately two weeks. When dosed weekly at 10 mg/kg and higher the serum concentrations of 5F9 exceeded concentrations associated with activity in preclinical models. Our initial signs of clinical activity in patients with AML, CRC, NHL or ovarian cancers were all observed at doses of 10 mg/kg weekly or higher suggesting our preclinical model results are consistent with our clinical observations. Anti-drug antibodies were detected in 2 of 58 evaluable patients in the solid tumor trial; however, the presence of such antibodies were not associated with changes in 5F9 pharmacokinetics or clinical consequences. The anti-drug antibody rate for 5F9 (3%) is similar to other humanized antibodies.

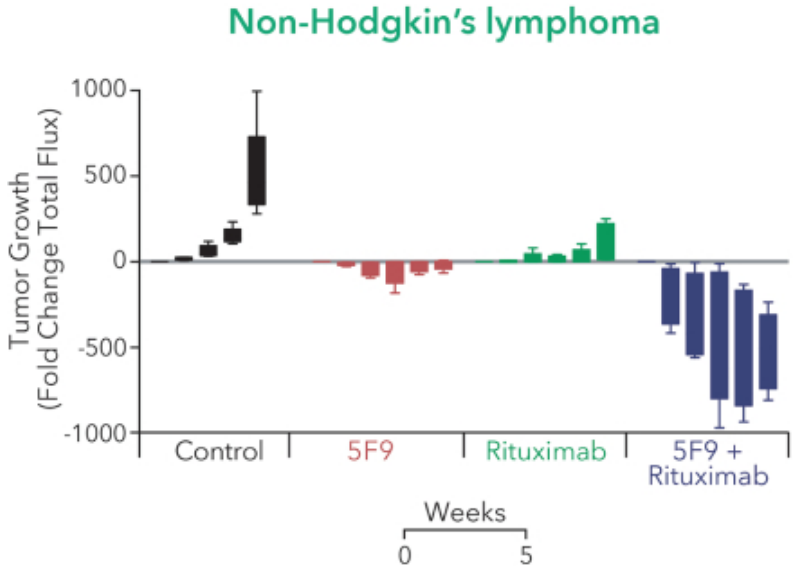
Preclinical Data

The role of CD47 as a key component of self-recognition in the innate immune system and its potential role as an immuno-oncology target has been well-published by our founders at Stanford University. These findings have been validated by independent publications from multiple academic groups. Some key findings of this preclinical research:

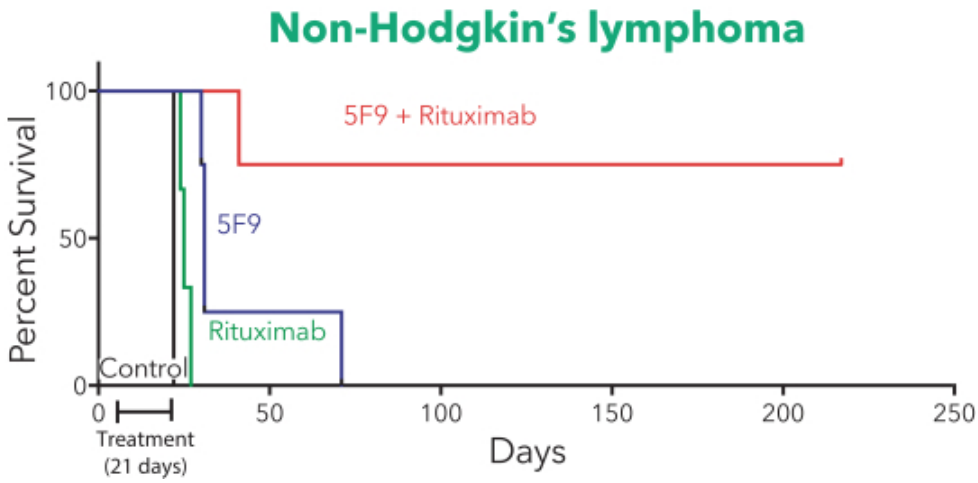
- CD47 is overexpressed in a majority of tumor types;
- Expression levels of CD47 are correlated with evasion of phagocytosis by macrophages;
- High expression of CD47 is associated with poor prognosis in patients with hematologic cancer and solid tumors;
- Antibodies against CD47 promote antitumor activity in over 25 types of tumors including AML, CRC, NHL, ovarian cancer and others;
- The therapeutic cancer treatment azacitidine can synergize with 5F9 in animal models of AML;
- Addition of therapeutic cancer antibodies can synergize with CD47 antibodies in animal models including rituximab, cetuximab, trastuzumab and others; and

- CD47 antibody-mediated phagocytosis of cancer cells enables macrophages to present tumor antigens to recruit and activate anti-tumor T cells and therefore can synergize with T cell checkpoint therapies.

An example of the anti-tumor potential of combining inhibition of the CD47 “don’t eat me” signal by 5F9 and the “eat me” signal from rituximab was observed in a mouse models of NHL. In these models, a highly aggressive human NHL cell line is used to introduce tumors into mice. When given as a monotherapy, 5F9 or rituximab monotherapy was only able to keep the tumor from growing larger. However, when 5F9 and rituximab were dosed together, significant shrinkage of tumors was observed within two to five weeks, as shown in the figure below.



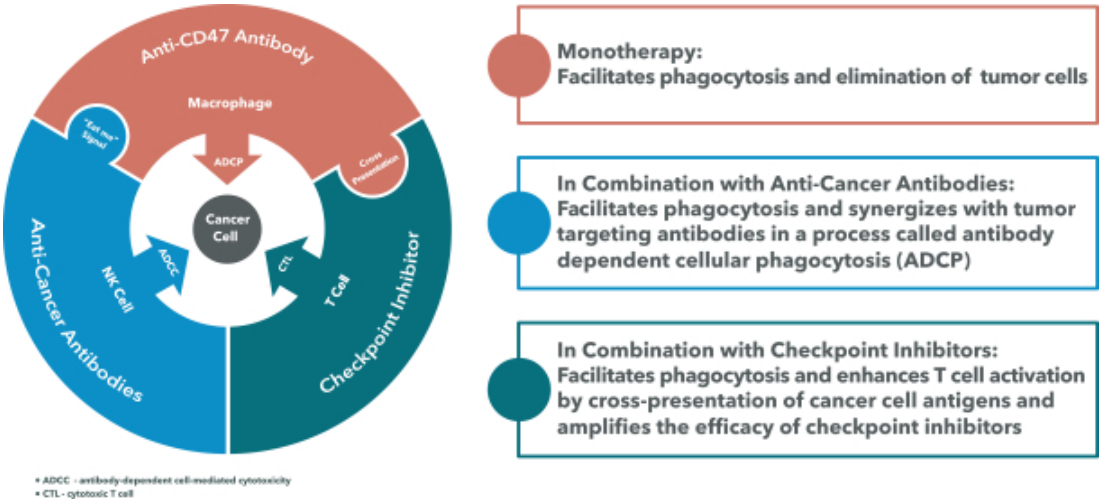
This reduction in tumor burden was associated with a significant improvement in overall survival with the majority of the mice exhibiting the disappearance or near-disappearance of their tumors, as shown in the figure below. This preclinical data and similar preclinical data in other animal models serve as the basis for our ongoing and future clinical trials.



Importance of 5F9 in a Multipronged Approach to Treating Cancer

5F9 has the potential to be an important therapeutic contributing to a multipronged approach to oncology treatment. While the field of immuno-oncology is a growing area of scientific focus, macrophage activation is missing from the current repertoire of biological oncology agents. Agents that target the CD47-SIRPa interaction can address this missing component.

- ***Anti-CD47***. Direct blockage of the CD47-SIRPa interaction enables macrophages to recognize cancer cells via endogenous "eat me" signals such as calreticulin as well as by antibodies to surface expressed antigens. Antibodies that are present endogenously or are provided therapeutically bind to surface antigens on cancer cells leading to their capturing and engulfing by macrophages in a process called antibody dependent cellular phagocytosis or ADCP. To date, no therapies have been approved that release macrophages from CD47-dependent inhibition.
- ***Anti-Cancer Antibodies***. Antibodies, such as rituximab, that recognize cancer cells trigger activation of natural killer or NK cells which result in antibody dependent cellular cytotoxicity or ADCC. Over twenty antibody products have been approved as therapeutics in oncology. These include antibodies that target antigens such as CD20 (rituximab, obinutuzumab, ofatumumab), epidermal growth factor receptor or EGFR (cetuximab, panitumumab), human epidermal growth factor receptor 2 (HER2) (trastuzumab, pertuzumab), among others. These therapeutics represent a mainstay of cancer therapy, but have limited efficacy as monotherapies. Binding of these antibodies to cancer cells can also provide strong "eat me" signal triggering attack by macrophages.
- ***Checkpoint Inhibitors***. Cytotoxic T cells are components of the adaptive immune system that are specialized for specific antigens on cancer cells. These may include naturally derived T cells that target tumor-specific antigens including neoantigens or antigens that arise from mutations within tumors. T cell agents also include a new class of cellular therapeutics such as CAR-T cells that are generated by genetic engineering, such as KYMRIAH (tisagenlecleucel) and YESCARTA (axicabtagene ciloleucel). A series of pharmacological agents known as checkpoint inhibitors have been approved as cancer therapeutics that function by relieving the active suppression of cytotoxic T cell activity. These agents include antibodies against PD-1, such as nivolumab and pembrolizumab, and PD-L1, such as atezolizumab and avelumab, as well as CTLA-4, such as ipilimumab. Similar to other biologics in oncology, these agents have limited efficacy when used as a monotherapy, and are currently the subject of over 1,300 clinical trials investigating their efficacy when used in combination. Phagocytosis of cancer cells by macrophages results in processing and presentation of tumor antigens to T cells, potentially increasing their efficacy.



Benefit of Macrophage Activation in Viral Infections

Macrophages are the first line of defense against pathogens and the expression of CD47 on patient cells may prevent recognition of some viral infections such as Human Immunodeficiency Virus, or HIV. We are in discussions to provide 5F9 to University of California, San Francisco, or UCSF, for their work with Gilead, a leader in the development and commercialization of HIV therapies, in the investigation of the potential of 5F9 to help eradicate reservoirs of cells that contain residual HIV infections. Researchers at UCSF, together with Gilead, will test the potential of 5F9 as a monotherapy and in combination with a TLR7 agonist, a compound designed to stimulate macrophage recognition of viral RNA, in non-human primates and other animal models. We have worldwide rights to 5F9 in all indications.

Other Preclinical Programs

We are working to develop additional products aimed at enhancing anti-cancer phagocytosis. This includes, but is not limited to the addition or enhancement of pro-phagocytic signals and further inhibition of anti-phagocytic signals. This development pipeline is balanced with preclinical agents at various stages of development, including a mix of both clinically validated and novel targets.

Other Potential Ways to Interfere with CD47-SIRP*a *Interaction

There are multiple types of pharmaceutical interventions that have been used to inhibit receptor-target interactions such as CD47-SIRPa. These have included antibodies that block the interaction by binding to either of the partners; small molecules and peptides that prevent the target from binding to the receptor or block downstream signaling events; and soluble decoy molecules that bind to one of the partners thereby preventing the other partner from binding productively. In addition to the 5F9, which is an antibody that binds to CD47 blocking its binding to SIRPa, we have also explored the potential of interfering with CD47 activity through other modalities. Our next product candidate, FSI-189, is an antibody that binds to SIRPa. We plan to initiate Phase 1 solid tumor trials for FSI-189 in 2019.

Each of the different modalities has advantages and disadvantages and we believe that the central role of the CD47-SIRPa in regulating self-recognition in the innate immune system provides opportunities for multiple products to have therapeutic benefit in specific indications. Some SIRPa decoy molecules have a lower affinity for CD47 and thereby reduce the risk of red blood cell attack and subsequent anemia. However, these product candidates exhibited dose limiting toxicities at less than 1 mg/kg due to their toxicities on platelets. Antibodies that target SIRPa would be expected to be effective without targeting red blood cells, but, depending on their specific properties, these antibodies may not have any monotherapy activity. Specific variants of all of these modalities, such as whether antibodies are of the IgG1 subtype versus the IgG4 subclass, are expected to have different profiles based on interactions with other components of the immune system.

CKIT Discovery Program

CKIT is expressed on numerous cancers including leukemia, melanoma and gastrointestinal stroma tumors, or GIST, and on hematopoietic (blood) stem cells, or HSC. Anti-CKIT antibodies binding to these cells can provide an additional “eat me” signal to macrophages and have been shown to exhibit anti-cancer efficacy in both *in vitro* and *in vivo* GIST mouse models. In addition, preclinical mouse studies have shown that anti-CKIT antibodies, in conjunction with anti-CD47 antibodies, can deplete endogenous HSCs to facilitate transplantation of donor HSCs, which may serve as a less toxic bone marrow transplant conditioning regimen than therapies such as chemotherapy or radiation. We are developing anti-CKIT antibodies for cancer treatment and as a chemo and radiation free conditioning regimen for HSC transplant.

License and Collaboration Agreements

Exclusive (Equity) Agreement with The Board of Trustees of the Leland Stanford Junior University

In November 2015, we entered into a license agreement with Stanford under which we obtained a worldwide, royalty-bearing, sublicenseable license under certain patents, know-how and other intellectual property, including rights associated with the composition of matter of 5F9, to develop, manufacture and commercialize products for use in certain licensed fields, the scope of which would include the application of the licensed intellectual property in oncology. The license granted to us in the agreement is exclusive, subject to certain pre-existing non-exclusive or exclusive rights that Stanford granted to third parties with respect to certain categories of the licensed patents in certain fields of use and retained rights by Stanford and all other non-profit institutions to use and practice the licensed patents and technology for internal research and other non-profit purposes.

In consideration for the rights granted to us under the agreement, we paid Stanford non-refundable license fees totaling $200,000, reimbursed Stanford for past patent expenses totaling approximately $933,000 and granted Stanford 7,751,242 shares of our common stock. In addition, we are obligated to pay Stanford ongoing patent expenses and an annual license maintenance fee ranging from $20,000 to $70,000, depending on the year, which will be creditable against any royalties payable to Stanford in any such year following the first commercial sale of licensed products under the agreement. We are required to make milestone payments up to $5.6 million in respect of the first three licensed products that successfully satisfy certain clinical and regulatory milestones in the United States, major European countries and Japan. The first clinical milestone payment of $75,000 was paid to Stanford in February 2018, recognizing the initiation of the Phase 2 trial of 5F9 in NHL. We also agreed to pay Stanford tiered royalties on a specified percentage of net sales made by us, our affiliates and our sublicensees of licensed products at rates ranging from a low-to-high single digit percentage, subject to certain reductions and offsets, with the royalty rate on 5F9 reaching a high single digit percentage when its net sales exceed $3 billion. To the extent we enter into any sublicensing agreements granting rights to any of the licensed patents to a third party, other than the right to make, have made, use or sell licensed products on behalf of us or our affiliates, we will be required to pay Stanford a low-to-mid double digit percentage of all non-royalty income received from such sublicensees, which decreases based on our level of investment in the licensed products or licensed services and their stage of development. Our license, on a product-by-product and country-by country basis, shall become royalty-free and fully paid-up upon the later of (i) the date on which the last valid claim included in the licensed patents expires and (ii) the ten year anniversary of the first commercial sale of the licensed product.

We are obligated to use commercially reasonable efforts to commercialize the inventions covered by the licensed patent rights. We are also required to achieve certain specified milestones by specified times, provided that an extension of such timelines can be obtained upon mutual agreement by the parties.

Stanford retains sole responsibility for the prosecution and maintenance of certain patents relating to SIRPa, upon consultation with us. We are responsible for the prosecution and maintenance of the other licensed patents, at our expense and using commercially reasonable efforts, but Stanford retains final approval of such matters. Except for the patents prosecuted and maintained by Stanford, we have the first right to enforce the licensed patents, at our expense.

We may terminate the license at any time for any reason with at least 30 days' written notice to Stanford. Stanford may terminate the license if we enter into an insolvency-related event or in the event of our material breach of the agreement or other specified obligations therein, in each case, that remains uncured for 30 days after the date that we are provided with written notice of such breach by Stanford. In addition, if we fail to achieve any specified diligence milestone by the specified time, Stanford has the right to terminate our license solely with respect to the applicable licensed products for which the milestone was not achieved, which could include 5F9. Our obligations to pay royalties that are accrued or accruable will survive any termination.

Clinical Trial Collaboration and Supply Agreement with Merck KGaA

In January 2018, we entered into a clinical trial collaboration agreement with Ares Trading S.A., a subsidiary of Merck KGaA, to evaluate the safety, tolerability and clinical activity of 5F9 combined with Merck KGaA's cancer immunotherapy, avelumab, a fully humanized monoclonal antibody targeting PD-L1, in a Phase 1b clinical trial in patients with ovarian cancer. Pursuant to the agreement, we will act as the sponsor of the study and will hold the regulatory filings relating to the study. We will supply 5F9 and Merck KGaA will supply avelumab for the study, and we and Merck KGaA will jointly pay for the cost of the study. We will conduct the study under the supervision of a joint combination study committee comprised of an equal number of representatives from each of Merck KGaA and us.

Under the terms of the agreement, we own the rights to any inventions or discoveries arising from the study that relate solely to 5F9. Merck KGaA owns the rights to any inventions or discoveries arising from the study that relate solely to avelumab. Both parties will jointly own the rights to inventions or discoveries relating to 5F9 and avelumab in combination. Each party has the sole right to prosecute and maintain patents relating to its solely owned inventions or discoveries, and we will be primarily responsible for, upon consultation with Merck KGaA, the prosecution, maintenance and defense of patents relating to jointly owned inventions or discoveries. We and Merck KGaA each have the first right to initiate legal action to enforce patents relating to jointly owned discoveries where the alleged infringement or misappropriation results from the development or sale of 5F9 or avelumab, respectively.

During the course of the agreement and for a limited time after our delivery of the final clinical study report to Merck KGaA, we agreed to work exclusively with Merck KGaA for any trials testing 5F9 in combination with an anti-PD-1 or anti-PD-L1 antibody in the specific field of ovarian cancer. In addition we have an option to initiate an additional study under the agreement to evaluate 5F9 and avelumab in combination in patients with a different cancer indication or another indication that may be agreed by the parties, which Merck may elect to co-fund at its discretion.

The agreement will expire after a set period of time following our provision of the final clinical study report to Merck KGaA. We and Merck KGaA each have the right to terminate the agreement in the event of an uncured material breach of the agreement by the other party. In addition, each party may terminate the agreement upon its own reasonable good faith determination (i) that the study presents a safety risk or (ii) that it is required to be terminated for medical, scientific, legal or regulatory reasons, or if an applicable regulatory authority takes any action that prevents the supply of its respective compound for use in the study. If Merck KGaA terminates the agreement for medical, scientific, legal or regulatory reasons relating to avelumab, we will be able to continue any study that is ongoing as of the effective date of termination.

Master Combination Study Agreement with Genentech, Inc.

In November 2017, we entered into a master clinical trial collaboration agreement with Genentech to evaluate the safety, tolerability and clinical activity of 5F9 combined with Genentech's cancer immunotherapy, atezolizumab, a fully humanized monoclonal antibody targeting PD-L1, in two separate Phase 1b clinical trials (in patients with bladder cancer and AML, respectively). Pursuant to the agreement, we will supply 5F9 for the studies and will partially reimburse Genentech for its costs in connection with the bladder cancer study, and Genentech will supply atezolizumab for the studies and be solely responsible for all of its costs in connection with the AML study. Genentech will conduct the studies under the supervision of a joint development committee comprised of representatives of both parties.

Under the terms of the agreement, we own the rights to any inventions or discoveries arising from the study that relate solely to 5F9. Genentech owns the rights to any inventions or discoveries arising from the study that relate solely to atezolizumab. Both parties will jointly own the rights to inventions or discoveries relating to 5F9 and atezolizumab in combination, without the right to assign or license any patents that relate to such jointly

owned rights to third parties unless necessary for the research, development or commercialization of products utilizing the combination of 5F9 and atezolizumab. Additionally, each party grants the other a non-exclusive, worldwide, fully-paid, perpetual, sublicenseable license to research, develop and commercialize combinations of 5F9 and atezolizumab. Genentech does not receive any rights from us to research, develop or commercialize 5F9 except in combination with atezolizumab and we do not receive any rights from Genentech to research, develop or commercialize atezolizumab except in combination with 5F9. Each party has the sole right to prosecute, maintain and enforce patents relating to its solely owned inventions or discoveries, and we and Genentech shall jointly prosecute, maintain and enforce patents relating to jointly owned inventions or discoveries.

As part of the agreement, we agreed to notify Genentech if we intend to commence discussions with a third party regarding an agreement to commercialize 5F9 in combination with a PD-L1 or PD-1 antagonist. Following such notice, we may not execute any such agreement until the earlier of 30 days following the date of such notice and Genentech's written confirmation that it does not intend to discuss with us a similar commercial arrangement.

The agreement shall expire after the later of (i) five years after its effective date and (ii) the expiration, termination or completion of all studies being performed under the agreement. We and Genentech each have the right to terminate the agreement in the event of a material breach of the agreement by the other party that remains uncured for 30 days after the date that such party is provided with written notice of such breach. In addition, subject to certain discussion obligations and limitations, each party may suspend or terminate a study under the agreement if, based on its review of the study data and other related information, such party determines that the study presents a safety risk or if an applicable regulatory authority withdraws authorization to conduct such study or takes any action that prevents the supply of 5F9 or atezolizumab for use in the study.

Clinical Trial Collaboration and Supply Agreement with Eli Lilly and Company

In August 2016, we entered into a clinical trial collaboration agreement with Eli Lilly and Company and its subsidiary ImClone LLC, collectively Lilly, to evaluate the safety, tolerability and clinical activity of 5F9 combined with Lilly's cancer immunotherapy, cetuximab, a chimeric monoclonal antibody targeting the epidermal growth factor receptor, in a Phase 1b/2 clinical trial in patients with solid tumors and CRC. Pursuant to the agreement, we will act as the sponsor of the study and will hold the applicable regulatory filings relating to the study. Lilly will supply cetuximab for the study at no cost to us, and we will supply 5F9 and bear all other costs of the study.

Under the terms of the agreement, we own the rights to any inventions or discoveries arising from the study that relate solely to 5F9. Lilly owns the rights to any inventions or discoveries arising from the study that relate solely to cetuximab. Both parties will jointly own the rights to inventions or discoveries relating to 5F9 and cetuximab in combination. Pursuant to the agreement, the prosecution, maintenance and defense of patents relating to jointly owned inventions or discoveries will be managed jointly by the parties. Each party has the first right to initiate legal action to enforce patents relating to jointly owned discoveries depending on whether the alleged infringement or misappropriation results from the development or sale of a biosimilar or interchangeable version of 5F9, in which case we will have the first right, or cetuximab, in which case Lilly will have the first right. Each party has the sole right to prosecute, maintain and enforce patents relating to its solely owned inventions or discoveries.

Unless earlier terminated, the agreement will expire after each party completes all of its obligations under the agreement. Each party may terminate the agreement for an uncured material breach by the other party, for certain violations of anti-corruption and other applicable laws by the other party, if such party determines in good faith that the continuation of the study presents an unreasonable safety risk to patients, or if an applicable regulatory authority takes any action that prevents the supply of its respective compound for use in the study. In addition, we can terminate the agreement if we discontinue the development of 5F9, and Lilly can terminate the agreement if cetuximab is no longer commercially available.

Sales and Marketing

Given our stage of development, we have not yet established a commercial organization or distribution capabilities. We plan to build focused capabilities in the United States and European Union to commercialize our development programs focused on NHL, where we believe the patient populations and medical specialists for the indications we are targeting are sufficiently concentrated to allow us to effectively promote our product, if approved for commercial sale, with a targeted sales team. In other markets for which commercialization may be less capital efficient for us, we may selectively pursue strategic collaborations with third parties in order to maximize the commercial potential of our drug candidates.

Manufacturing and Supply

We currently do not own or operate any manufacturing facilities. We rely, and expect to continue to rely for the foreseeable future, on third party contract manufacturing organizations, or CMOs, including Lonza, to produce our product candidates for preclinical and clinical testing, as well as for commercial manufacture if our product candidates receive marketing approval. We require that our CMOs produce bulk drug substances and finished drug products in accordance with current cGMPs and all other applicable laws and regulations. We maintain agreements with our manufacturers that include confidentiality and intellectual property provisions to protect our proprietary rights related to our product candidates.

We have engaged Lonza to manufacture 5F9 for preclinical and clinical use. Additional CMOs are used to label, package and distribute 5F9 for preclinical and clinical use. We obtain our supplies from these CMOs on a purchase order basis and do not have any long-term supply arrangements in place. We do not currently have arrangements in place for redundant supply. For all of our product candidates, we intend to identify and qualify additional manufacturers to provide the active pharmaceutical ingredient and fill-and-finish services prior to seeking regulatory approval.

In August 2016 and December 2017, we entered into development and manufacturing agreements with Lonza relating to the manufacturing of 5F9-related products. The August 2016 agreement was amended in November 2017 to provide for the manufacturing of our other preclinical program related products.

Under the 2016 agreement, we are required to pay an annual suite reservation fee in each contract year along with the costs of ingredients, solvents and other components of 5F9-related and our preclinical program-related products.

Our payment obligations under the 2017 agreement will begin in January 2019 and run through the expiration of the agreement, which is expected in December 2021, unless the agreement is extended for at least an additional year. Under the 2017 agreement, we must also pay the costs of ingredients, solvents and other components of 5F9-related products required for the performance of the manufacturing process or services.

Competition

The pharmaceutical industry and the immuno-oncology subsector are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary drugs. We face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions. Any drug candidates that we successfully develop and commercialize will compete with existing treatments and new treatments that may become available in the future.

The key competitive factors affecting the success of 5F9, if approved, are likely to be its efficacy, safety, convenience, pricing and durability.

We are aware that Celgene Corporation, Trillium Therapeutics, Alexo Therapeutics, Arch Therapeutics, Surface Oncology, Novimmune, OSE Immunotherapeutics and Aurigene Discovery Technologies and others are developing drugs targeting the CD47 pathway that may have utility for the treatment of indications that we are targeting.

As noted above, there are existing treatment alternatives in each of the indications we are targeting, and we will face competition from the incumbent drug therapies in each of those markets.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize drugs that are safer, more effective, more convenient, less expensive or with a more favorable label than 5F9 or any other drug that we may develop. Our competitors also may obtain FDA or other regulatory approvals for their drugs more rapidly than we may obtain approval for our drug, which could result in our competitors establishing a strong market position before we are able to enter the market. Many of the companies against which we are competing, or against which we may compete in the future, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors will also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and subject registration for clinical trials, as well as in acquiring technologies complementary to, or that may be necessary for, our programs.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our current and future product candidates, novel discoveries, product development technologies and know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. We seek to protect our proprietary position by, among other methods, filing or in-licensing U.S. and foreign patents and patent applications related to technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trademarks, trade secrets, copyright protection, know-how, continuing technological innovation and confidential information to develop and maintain our proprietary position.

Regardless of the coverage we seek under our existing patent applications, there is always a risk that an alteration to the product or process may provide sufficient basis for a competitor to avoid infringement claims. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued and courts can reinterpret patent scope after issuance. Moreover, many jurisdictions, including the United States, permit third parties to challenge issued patents in administrative proceedings, which may result in further narrowing or even cancellation of patent claims. Moreover, we cannot provide any assurance that any patents will be issued from our pending or any future applications or that any current or future issued patents will adequately protect our intellectual property.

As of December 31, 2017, we own four U.S. provisional patent applications, and our portfolio of licensed patents, which we license from Stanford, includes approximately 91 issued patents (18 of which are in the United States) and approximately 98 pending patent applications (23 of which are in the United States). These licensed patents are expected to expire between 2029 and 2034 excluding any extension of patent term that may be available. For more information regarding our license agreement with Stanford, please see “Business—License and Collaboration Agreements.”

Our patent portfolio licensed from Stanford contains patent families directed to the 5F9 composition of matter and methods of using 5F9 as a monotherapy and in combination with certain other therapeutic

compounds, which are comprised of 11 U.S. issued patents, four U.S. patent applications and two granted European patents which have each been validated as national patents in 12 different European countries. These patents are subject to retained rights by Stanford to allow academic and non-profit research institutions to practice the licensed technology and patents for non-commercial purposes. In addition, some of these patents are subject to certain pre-existing non-exclusive rights that Stanford has granted to two third parties. In particular, a non-exclusive license to certain patents was granted to a third party in the field of research product sales and diagnostics for use in a flow cytometry platform. Another non-exclusive license to certain patents was granted to a different third party for the use of certain SIRPa proteins, SIRPa fragments and SIRPa fusion proteins as therapeutic agents for use in the therapeutics field. For clarity, we believe that these pre-existing non-exclusive licenses do not relate to 5F9 or our other product candidates or their use in the therapeutic field. These patents are expected to expire between 2029 and 2034 excluding any extension of patent term that may be available.

Provisional patent applications are not eligible to become issued patents until, among other things, we file a non-provisional patent application within 12 months of filing of one or more of our related provisional patent applications. If we do not timely file any non-provisional patent applications, we may lose our priority date with respect to our provisional patent applications and any patent protection on the inventions disclosed in our provisional patent applications. While we intend to timely file non-provisional patent applications relating to our provisional patent applications, we cannot predict whether any such patent applications will result in the issuance of patents that provide us with any competitive advantage.

Individual patents extend for varying periods depending on the date of filing of the patent application or the date of patent issuance and the legal term of patents in the countries in which they are obtained. Generally, utility patents issued for applications filed in the United States are granted a term of 20 years from the earliest effective filing date of a non-provisional patent application. In addition, in certain instances, a patent term can be extended to recapture a portion of the delay by the USPTO, in issuing the patent as well as a portion of the term effectively lost as a result of the FDA regulatory review period. However, as to the FDA component, the restoration period cannot be longer than five years, the total patent term including the restoration period must not exceed 14 years following FDA approval, only one patent applicable to each regulatory review period may be extended and only those claims covering the approved drug or a method for using it may be extended. The duration of foreign patents varies in accordance with provisions of applicable local law, but typically is also 20 years from the earliest effective filing date. The actual protection afforded by a patent may vary on a product-by-product basis and from country to country and can depend upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

Furthermore, we rely upon trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our employees and consultants and any potential commercial partners and collaborators and invention assignment agreements with our employees. We also have implemented or intend to implement confidentiality agreements or invention assignment agreements with our selected consultants and any potential commercial partners. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Our commercial success will also depend in part on not infringing upon, misappropriating or otherwise violating the intellectual or proprietary rights of third parties. The issuance of third-party patents could require us to alter our development or commercial strategies, change our products or processes, obtain licenses to additional third-party patents or other intellectual property or cease certain activities. Our breach of any license agreements

or failure to obtain a license to proprietary rights that we may require to develop or commercialize our future products may have an adverse impact on us. Given that patent applications in the United States and certain other jurisdictions are maintained in secrecy for 18 months or potentially longer, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in interference, revocation, derivation, re-examination, post-grant review, *inter partes* review, or opposition proceedings brought by third parties or declared by the USPTO or an equivalent foreign body. For more information regarding the risks related to our intellectual property, please see "Risk Factors—Risks Related to Our Intellectual Property."

Government Regulation

The FDA and comparable regulatory authorities in state and local jurisdictions and in other countries impose substantial and burdensome requirements upon companies involved in the clinical development, manufacture, marketing and distribution of products, such as those we are developing. These agencies and other federal, state and local entities regulate, among other things, the research and development, testing, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion, distribution, post-approval monitoring and reporting, sampling and export and import of our product candidates.

United States Government Regulation

In the United States, the FDA regulates pharmaceuticals under the Federal Food, Drug, and Cosmetic Act, or FDCA, the Public Health Service Act, or PHSA, and their implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a pharmaceutical product may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's GLP regulations;
- submission to the FDA of an IND which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with GCP requirements to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of a BLA in the case of a biologic such as 5F9;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity; and
- FDA review and approval of the BLA.

Preclinical Studies

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical

tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

Clinical trials involve the administration of the investigational new drug to human patients under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research patients provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their www.clinicaltrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- Phase 1 clinical trial: The drug is initially introduced into healthy human volunteers or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.
- Phase 2 clinical trial: The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- Phase 3 clinical trial: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Each of Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. In most cases, the submission of a BLA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of a standard BLA to review and act on the submission. This review typically takes 12 months from the date the BLA is submitted to FDA because the FDA has approximately two months to make a "filing" decision.

In addition, under the Pediatric Research Equity Act of 2003, or PREA, as amended and reauthorized, certain applications or supplements must contain data that are adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all BLAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept a BLA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews a BLA to determine, among other things, whether the biologic is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving a BLA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP requirements.

After evaluating the BLA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the application and may require additional clinical or preclinical testing in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-Approval Requirements

Pharmaceuticals manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual program user fee requirements for any marketed products, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an application. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

In addition, pharmaceutical manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

Orphan Drug Designation in the United States

Under the Orphan Drug Act of 1983, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting a BLA or supplemental BLA. After the FDA grants orphan drug designation, the name of the sponsor, identity of the drug

or biologic and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not shorten the duration of the regulatory review or approval process, but does provide certain advantages, such as a waiver of PDUFA, fees, enhanced access to FDA staff and potential waiver of pediatric research requirements.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug or biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent the FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the application user fee. A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

In August 2015, the FDA granted orphan drug designation in the United States for 5F9 for the treatment of AML. We intend to pursue orphan drug designation for 5F9 in additional indications, as well as for potential other future product candidates, in the United States and in the European Union as we deem it appropriate. Even if we obtain orphan drug designation for a product candidate, we may not obtain orphan exclusivity and that exclusivity may not effectively protect the drug or biologic from the competition of different drugs or biologics for the same condition, which could be approved during the exclusivity period.

Expedited Development and Review Programs

The FDA is required to facilitate the development and expedite the review of pharmaceutical products that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast track program, the sponsor of a new drug candidate may request the FDA to designate the product for a specific indication as a fast track product concurrent with or after the filing of the IND for the product candidate. The FDA must determine if the product candidate qualifies for fast track designation within 60 days after receipt of the sponsor's request. In April 2018, the FDA granted Fast Track designations to 5F9 for the treatment of both relapsed and/or refractory DLBCL and relapsed and/or refractory FL.

In addition to other benefits, such as the ability to have more frequent interactions with the FDA, the agency may initiate review of sections of a fast track product's BLA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the FDA's PDUFA review period for a fast track application does not begin until the last section of the BLA is submitted. In addition, the fast track designation may be withdrawn by the FDA if the agency believes that the designation is no longer supported by data emerging in the clinical trial process.

Coverage and Reimbursement

Sales of our drug candidates, if approved, will depend, in part, on the extent to which such products will be covered by third-party payors, such as government health care programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly limiting coverage or reducing reimbursements for medical products and services. In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Third-party payors decide which therapies they will pay for and establish reimbursement levels. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage and reimbursement policies. However, decisions regarding the

extent of coverage and amount of reimbursement to be provided for any drug candidates that we develop will be made on a payor-by-payor basis. Each payor determines whether or not it will provide coverage for a therapy, what amount it will pay the manufacturer for the therapy, and on what tier of its formulary it will be placed. The position on a payor's list of covered drugs, or formulary, generally determines the co-payment that a patient will need to make to obtain the therapy and can strongly influence the adoption of such therapy by patients and physicians. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our drug candidates or a decision by a third-party payor to not cover our drug candidates could reduce physician usage of our drug candidates, once approved, and negatively impact our sales, results of operations and financial condition.

Other Healthcare Laws

Because of our current and future arrangements with healthcare professionals, principal investigators, consultants, customers and third-party payors, we will also be subject to healthcare regulation and enforcement by the federal government and the states and foreign governments in which we will conduct our business, including our clinical research, proposed sales, marketing and educational programs. Failure to comply with these laws, where applicable, can result in the imposition of significant civil penalties, criminal penalties, or both. The U.S. laws that may affect our ability to operate, among others, include: HIPAA, as amended by HITECH, which is a federal law governing the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information; certain state laws governing the privacy and security of health information in certain circumstances, some of which are more stringent than HIPAA and many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts; the federal healthcare programs' Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs; federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent; federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters; the Physician Payments Sunshine Act, which requires manufacturers of drugs, devices, biologics and medical supplies to report annually to the U.S. Department of Health and Human Services information related to payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and ownership and investment interests held by physicians and their immediate family members; and state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers.

In addition, many states have similar laws and regulations, such as anti-kickback and false claims laws that may be broader in scope and may apply regardless of payor, in addition to items and services reimbursed under Medicaid and other state programs. Additionally, to the extent that our product is sold in a foreign country, we may be subject to similar foreign laws.

Current and future legislative proposals to further reform healthcare or reduce healthcare costs may result in lower reimbursement for our products. The cost containment measures that payors and providers are instituting and the effect of any healthcare reform initiative implemented in the future could significantly reduce our revenues from the sale of our products.

Orphan Drug Designation in the European Union

In accordance with Article 3 of Regulation (EC) No. 141/2000 of the European Parliament and of the Council of 16 December 1999 on orphan medicinal products, a medicinal product may be designated as an

orphan medicinal product if: (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the European Union when the application is made, or (b) the product, without the incentives derived from orphan medicinal product status, would not generate sufficient return in the European Union to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the European Union, or if such a method exists, the product will be of significant benefit to those affected by the condition.

Products authorized in the European Union as orphan medicinal products are entitled to 10 years of market exclusivity. The 10-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation. Additionally, marketing authorization may be granted to a similar product during the 10-year period of market exclusivity for the same therapeutic indication at any time if:

- the second applicant can establish in its application that its product, although similar to the orphan medicinal product already authorized, is safer, more effective or otherwise clinically superior;
- the holder of the marketing authorization for the original orphan medicinal product consents to a second orphan medicinal product application; or
- the holder of the marketing authorization for the original orphan medicinal product cannot supply enough orphan medicinal product.

In November 2015, the EMA granted orphan drug designation in the European Union for 5F9 for the treatment of AML.

U.S. Healthcare Reform

Current and future legislative proposals to further reform healthcare or reduce healthcare costs may result in lower reimbursement for our products. The cost containment measures that payors and providers are instituting and the effect of any healthcare reform initiative implemented in the future could significantly reduce our revenues from the sale of our products.

For example, implementation of the Affordable Care Act has substantially changed healthcare financing and delivery by both governmental and private insurers, and significantly impacted the pharmaceutical industry. The Affordable Care Act, among other things, established an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents, revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, and provided incentives to programs that increase the federal government’s comparative effectiveness research.

Some of the provisions of the Affordable Care Act have yet to be implemented, and there have been judicial and congressional challenges to certain aspects of the Affordable Care Act. In January 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The U.S. House of Representatives passed legislation known as the American Health Care Act of 2017 in May 2017. More recently, the Senate Republicans introduced and then updated a bill to replace the Affordable Care Act known as the Better Care Reconciliation Act of 2017. The Senate Republicans also introduced legislation to repeal the Affordable Care Act without companion legislation to replace it, and a “skinny” version of the Better Care Reconciliation Act of 2017. Each of these measures was rejected by the full Senate. Congress will likely consider other legislation to replace elements of the Affordable Care Act.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, then-President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction, which triggered the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of, on average, 2% per fiscal year through 2025 unless Congress takes additional action. Recently, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for drugs.

We expect that additional federal and state, as well as foreign, healthcare reform measures will be adopted in the future, any of which could result in reduced demand for our products or additional pricing pressure.

Employees

As of December 31, 2017, we had 43 full-time employees, (i) 30 of whom were primarily engaged in research and development activities and (ii) 15 of whom had an M.D. or Ph.D. degree. None of our employees is represented by a labor union and we consider our employee relations to be good.

Facilities

Our principal executive offices are located at 1490 O'Brien Drive, Suite A, Menlo Park, California, under a lease that expires in 2021. We believe that our facilities are adequate to meet our current needs.

Legal Proceedings

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information concerning our directors and executive officers, including their ages as of May 1, 2018.

Name	Age	Position
Executive Officers		
Mark A. McCamish, M.D.	66	President, Chief Executive Officer and Director
Ann D. Rhoads	52	Chief Financial Officer
Chris H. Takimoto, M.D.	59	Chief Medical Officer
Craig S. Gibbs, Ph.D.	55	Chief Business Officer
Non-Employee Directors		
Kristine M. Ball(1)	46	Director
Jeffrey W. Bird, M.D.(2)(3)*	57	Director
Ian T. Clark(1)(3)	57	Director
Dennis J. Henner, Ph.D.(1)	66	Director
Ravindra Majeti, M.D.(2)	45	Director
Christopher J. Schaepe(2)(3)	54	Director
Irving L. Weissman, M.D.(3)	78	Director

(1) Member of the Audit Committee.
(2) Member of the Compensation Committee.
(3) Member of the Nominating and Corporate Governance Committee.
* Lead Director

Executive Officers

Mark A. McCamish, M.D. has served as our President and Chief Executive Officer and as a member of our board of directors since May 2017. From July 2009 to April 2017, Dr. McCamish served as Global Head of Biopharmaceutical Development at Sandoz Inc., a pharmaceutical company. He has over 25 years of experience in corporate management, clinical and pharmaceutical research and academics. Dr. McCamish received both a B.S. in Physical Education and an M.S. in Ergonomics from the University of California at Santa Barbara, a Ph.D. in Nutritional Sciences from the Pennsylvania State University and an M.D. from the University of California at Los Angeles. We believe Dr. McCamish's experience in the industry, his role as our President and Chief Executive Officer and his knowledge of our company enable him to make valuable contributions to our board of directors.

Ann D. Rhoads, has served as our Chief Financial Officer since March 2018. From January 2017 to March 2017, Ms. Rhoads was a consultant to Zogenix, Inc., a pharmaceutical company. From March 2010 until January 2017, Ms. Rhoads served as the Chief Financial Officer, Executive Vice President, Secretary and Treasurer of Zogenix, where she was responsible for Zogenix's financial strategy and all other duties of a Chief Financial Officer. From 2000 to 2009, she served as Chief Financial Officer of Premier Inc., a healthcare improvement company. From August 1998 to 2000, Ms. Rhoads served as Vice President, Strategic Initiatives at Premier, Inc. From 1993 to 1998, Ms. Rhoads served as Vice President of Sprout Group, a venture capital affiliate of Donaldson, Lufkin & Jenrette (now part of Credit Suisse First Boston). Ms. Rhoads has served as a member of the board of directors of IRIDEX Corporation, a medical technology company, since 2017, where she is currently

a member of the audit committee, Evoke Pharma, Inc., a pharmaceutical company, since 2013, where she is currently chair of the audit committee, and Globus Medical, Inc., a musculoskeletal implant company, since 2011, where she is also chair of the audit committee. Ms. Rhoads also previously served on the board of directors of Novellus Systems, Inc., a semiconductor company, from 2003 until 2012. Ms. Rhoads received a B.S. in Business Administration in Finance from the University of Arkansas and an M.B.A. from Harvard Business School.

Chris H. Takimoto, M.D. has served as our Chief Medical Officer since February 2016. From September 2010 to January 2016, Dr. Takimoto served as Vice President of Experimental Medicine Early Development in the Oncology Therapeutic area for Janssen Global Services, LLC, a pharmaceutical company. From 2008 to 2010, Dr. Takimoto served as Senior Director of Translational Medicine of Ortho Biotech Oncology Research and Development, a biotechnology company. He has over twenty years of experience in the industry and academia. Dr. Takimoto received a B.S. in Chemistry from Stanford University, a Ph.D. in Pharmacology from Yale University and an M.D. from Yale University School of Medicine.

Craig S. Gibbs, Ph.D. has served as our Chief Business Officer since September 2015. Dr. Gibbs was an independent consultant from April 2013 to September 2015. From June 1992 to April 2013, Dr. Gibbs served in various positions at Gilead, including as Vice President of Commercial Strategy/Planning and Operations from 2007 to 2013 and as Senior Director, Corporate Development from 2004 to 2007, Senior Director, Biology Research from 1998 to 2004 and in other research and development positions from 1992 to 1998. Prior to his time at Gilead, Dr. Gibbs served from 1989 to 1992 as Visiting Post-doctoral Scientist at Genentech. Dr. Gibbs received a B.S. in Biochemistry from Massey University, an M.B.A. from Golden Gate University and a Ph.D. in Molecular Biology from the University of Glasgow.

Non-Employee Directors

Kristine M. Ball has served as a member of our board of directors since February 2018. Since September 2017, she has served as Senior Vice President, Corporate Strategy and Chief Financial Officer of Menlo Therapeutics, Inc., a biopharmaceutical company. From November 2012 to October 2016, Ms. Ball served as Chief Financial Officer and Senior Vice President of Relypsa, Inc., a publicly listed pharmaceutical company acquired by Galenica. From June 2011 to October 2012, Ms. Ball was an independent consultant advising start up life science companies on various strategic and operational business matters. From 2005 to 2011, Ms. Ball served as Senior Vice President of Finance and Administration and Chief Financial Officer of KAI Pharmaceuticals, Inc. (acquired by Amgen), a drug discovery company. From 2000 to 2005, Ms. Ball served as Vice President of Finance at Exelixis, Inc., a biotechnology company. Prior to Exelixis, Ms. Ball was a senior manager in Ernst & Young's life sciences audit practice. Ms. Ball received a B.S. from Babson College. We believe Ms. Ball's experience in the pharmaceutical industry, her financial expertise and her executive experience at the public company level enable her to make valuable contributions to our board of directors.

Jeffrey W. Bird, M.D. has served as a member of our board of directors since June 2015. Since July 2003, Dr. Bird has been a managing director of Sutter Hill Ventures, a venture capital firm. Dr. Bird has served as a member of the board of directors of Restoration Robotics, Inc., a medical device company, since 2005, and Portola Pharmaceuticals, Inc., a pharmaceutical company, since 2003. Previously, Dr. Bird served on the board of directors of Threshold Pharmaceuticals, Inc. from 2008 to 2017 and of Horizon Pharma, Inc. from 2011 to 2014. Dr. Bird received a B.S. in Biological Sciences from Stanford University, a Ph.D. in Cancer Biology from Stanford University and an M.D. from Stanford Medical School. We believe Dr. Bird's experience as an investor in and as a board member of biotechnology and life sciences companies enable him to make valuable contributions to our board of directors.

Ian T. Clark has served as a member of our board of directors since April 2018. Mr. Clark has been an Operating Partner at Clarus Ventures, LLC, a venture capital firm, since September 2017. From 2003 to January 2017, Mr. Clark served in various positions at Genentech Inc., a biopharmaceutical company, including as the Chief Executive Officer of Genentech and head of North American Commercial Operations for Roche from 2010

to 2017, Head of Global Product Strategy and Chief Marketing Officer from 2009 to 2010, Executive Vice President, Commercial Operations from 2006 to 2009, and as Senior Vice President and General Manager, BioOncology from 2003 to 2006. Prior to 2003 he served in various positions of increasing seniority at Novartis, including as President of Novartis Canada. Mr. Clark has been Special Adviser to the Board at Immunocore Limited, a biotechnology company, since May 2017. He has served as a member of the board of directors of Agios Pharmaceuticals, Inc., since 2017, Corvus Pharmaceuticals, Inc., since 2017 and Shire plc, since 2017. From January 2017 until its acquisition by Gilead Sciences, Inc. in October 2017, Mr. Clark served as a member of the board of directors of Kite Pharma, Inc. From 2011 to 2017 Mr. Clark served as a member of the board of directors of TerraVia Holdings, Inc., a biotechnology company. Mr. Clark received a B.S. in Biological Sciences and an honorary Ph.D. in Biological Sciences from Southampton University. We believe Mr. Clark's extensive experience in the industry enable him to make valuable contributions to our board of directors.

Dennis J. Henner, Ph.D. has served as a member of our board of directors since November 2015. He is the Chief Scientific Advisor of Clarus Ventures, LLC, a venture capital firm, where he served as Managing Director from the firm's inception in March 2005 to January 2018. Prior to Clarus, Dr. Henner was a General Partner at MPM Capital, a healthcare venture capital firm. From 1981 to 2001, Dr. Henner was an executive at Genentech, where he held various positions including Senior Vice President of Research, and was a member of Genentech's executive committee. Dr. Henner previously served as a member of the board of directors of Aerie Pharmaceuticals, Inc., a pharmaceutical company, from 2012 to 2015, and Humanigen, Inc., a pharmaceutical company, from 2012 to 2013. Dr. Henner received a Ph.D. in Microbiology from the University of Virginia and did postgraduate training at the Scripps Clinic and Research Foundation. We believe Dr. Henner's experience in the pharmaceutical industry and his role in guiding numerous companies in his role as a venture capital investor enable him to make valuable contributions to our board of directors.

Ravindra Majeti, M.D. co-founded our company and has served as a member of our board of directors since May 2015. Dr. Majeti served in various positions at Stanford University, including as an Associate Professor in the Department of Medicine, Division of Hematology, since November 2015, and as an Assistant Professor in the Department of Medicine, Division of Hematology, from 2009 to November 2015. He received an A.B. in Biochemical Sciences from Harvard University, a Ph.D. and an M.D. from the University of California, San Francisco and completed a residency in internal medicine at Brigham and Women's Hospital. Dr. Majeti completed a Fellowship in Hematology at Stanford University. We believe Dr. Majeti's experience as a co-founder of our company and experience in developing 5F9 and the underlying scientific discoveries, his role on our board of directors and his knowledge of our company enable him to make valuable contributions to our board of directors.

Christopher J. Schaepe has served on our board of directors since June 2015. He is a founder of Lightspeed Venture Partners, a venture capital firm, and has served as a Partner since its inception in September 2000. Mr. Schaepe has over 26 years of venture capital experience and has served as a member of the board of directors of Tintri, Inc., a data storage company, since 2009 and Aerohive Networks, Inc., a wireless networking company, since 2006, and previously served as a member of the board of directors of Riverbed Technology, Inc. (acquired by Thoma Bravo, LLC in 2015), a technology company, from 2002 to 2015. He also serves as a member of the board of directors of a number of privately held companies, including Personalis, Inc., a bioinformatics company. He received B.S. and M.S. degrees in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology and an M.B.A. from the Stanford Graduate School of Business. We believe Mr. Schaepe's broad perspective and experience in the industry, his experience guiding numerous companies in his role as a venture capital investor and board member and his substantial professional experience enable him to make valuable contributions to our board of directors.

Irving L. Weissman, M.D. co-founded our company and has served as a member of our board of directors since May 2015. Since 2003, Dr. Weissman has served as the Director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine and Director of the Stanford Ludwig Center for Cancer Stem Cell Research. Dr. Weissman was a member of the founding Scientific Advisory Boards of Amgen, a biotechnology company, and T Cell Sciences, Inc., a biotechnology company. He also previously served as a member of the board of

directors of StemCells, Inc., acquired by Microbot Medical Ltd. in 2016, a pharmaceutical company, from 1997 to 2016. He co-founded, served as a Director, and chaired the Scientific Advisory Board at SyStemix, Inc., a biotechnology company, StemCells, Inc., a biotechnology company, and Cellerant Therapeutics, Inc., a biotechnology company. Dr. Weissman is a member of the National Academy of Sciences, the National Academy of Medicine, and the American Association of Arts and Sciences. He received a B.S. from Montana State University and an M.D. from Stanford University School of Medicine. He has several honorary Ph.D.s. We believe Dr. Weissman's experience in the study of cancer stem cells, including the discovery that all cancer stem cells express CD47, his role on our board and his knowledge of our company enable him to make valuable contributions to our board of directors.

There are no family relationships among any of our directors or executive officers.

Board Composition

Certain members of our board of directors were elected pursuant to the provisions of a voting agreement, as amended. Under the terms of this voting agreement, the stockholders who are party to the voting agreement have agreed to vote their respective shares so as to elect: (1) one director designated by Lightspeed Venture Partners X, L.P., currently Mr. Schaepe; (2) one director designated by Sutter Hill Ventures, currently Dr. Bird; (3) one director designated by Clarus Lifesciences III, L.P., currently Dr. Henner; (4) one director designated by Hadley Harbor Master Investors (Cayman) II L.P., currently Mr. Clark; (5) three directors designated by Drs. Majeti, McCamish and Weissman and other common stockholders, currently Drs. Majeti, McCamish and Weissman; and one director designated by the holders of a majority of the shares held by the common stockholders and a majority of the preferred stockholders, voting together as a single class on an as converted basis, currently Ms. Ball. The voting agreement will terminate upon the closing of this offering and none of our stockholders will have any special rights regarding the election or designation of members of our board of directors.

Our board of directors will consist of eight members upon the closing of this offering. In accordance with our amended and restated certificate of incorporation to be filed in connection with this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- the Class I directors will be and and their terms will expire at the annual meeting of stockholders to be held in 2019;
- the Class II directors will be and and their terms will expire at the annual meeting of stockholders to be held in 2020; and
- the Class III directors will be and and their terms will expire at the annual meeting of stockholders to be held in 2021.

We expect that additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director Independence

Under the listing requirements and rules of the Nasdaq Global Market, independent directors must comprise a majority of our board of directors as a listed company within one year of the closing of this offering.

Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that Drs. Bird, Henner, Majeti and Weissman, Ms. Ball, Mr. Clark and Mr. Schaepe do not have any relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the Nasdaq Global Market. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Lead Director

Our corporate governance guidelines and bylaws provide that one of our independent directors shall serve as a lead independent director at any time when an independent director is not serving as the chairperson of the board of directors.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Effective as of the date the registration statement of which this prospectus forms a part is declared effective by the SEC, our audit committee will consist of Ms. Ball, Mr. Clark and Dr. Henner, each of whom our board of directors has determined satisfies the independence requirements under the applicable listing standards and Rule 10A-3(b)(1) of the Exchange Act. The chair of our audit committee is Ms. Ball, whom our board of directors has determined is an "audit committee financial expert" within the meaning of the SEC regulations. Each member of our audit committee can read and understand fundamental financial statements in accordance with applicable listing standards. In arriving at these determinations, our board of directors has examined each audit committee member's scope of experience and the nature of her or his employment in the corporate finance sector. The functions of this committee include:

- helping our board of directors oversee our corporate accounting and financial reporting processes;
- reviewing and discussing with our management the adequacy and effectiveness of our disclosure controls and procedures;
- assisting with design and implementation of our risk assessment functions;
- evaluating the qualifications, performance and independence of our independent registered public accounting firm and deciding whether to retain its services;
- monitoring the rotation of partners of our independent registered public accounting firm on our engagement team as required by law;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing related party transactions;

- approving, or as permitted, pre-approving, audit and permissible non-audit services to be performed by an independent registered public accounting firm; and
- reviewing and assessing, at least annually, the performance of the audit committee and adequacy of its charter.

Compensation Committee

Effective as of the date the registration statement of which this prospectus forms a part is declared effective by the SEC, our compensation committee will consist of Dr. Bird, Dr. Majeti and Mr. Schaepe and the chair of our compensation committee will be Mr. Schaepe. Our board of directors has determined that each of Dr. Bird, Dr. Majeti and Mr. Schaepe is independent under the applicable listing standards, is a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act and is an "outside director" as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended, or Section 162(m). The functions of this committee include:

- reviewing, modifying and overseeing overall compensation strategy and policies;
- reviewing and approving the compensation and other terms of employment of our chief executive officer, other executive officers and senior management, as appropriate;
- reviewing and approving the compensation arrangements with our executive officers and other senior management, as appropriate;
- reviewing and recommending to the full board of directors the compensation of our directors;
- appointing and overseeing the work of compensation consultants, legal counsel or any other advisors and consultants engaged for the purpose of advising the compensation committee;
- adopting and administering equity award plans, compensation plans and similar programs, as well as modification or termination of plans and programs;
- establishing policies with respect to equity compensation arrangements;
- reviewing and evaluating with the chief executive officer the succession plans for our executive officers; and
- reviewing and assessing, at least annually, the performance of the compensation committee and the adequacy of its charter.

Nominating and Corporate Governance Committee

Effective as of the date the registration statement of which this prospectus forms a part is declared effective by the SEC, our nominating and corporate governance committee consists of Mr. Clark, Dr. Bird, Dr. Weissman and Mr. Schaepe and the chair of our nominating and corporate governance committee will be Dr. Bird. Our board of directors has determined that Mr. Clark, Dr. Bird and Dr. Weissman are independent under the applicable listing standards. The functions of this committee include:

- reviewing periodically and evaluating director performance of our board of directors and its applicable committees, and recommending to our board of directors and management areas for improvement;
- identifying, evaluating, nominating and recommending individuals for membership on our board of directors;
- reviewing with our chief executive officer the plans for succession to the offices of our executive officers and make recommendations to our board of directors with respect to the selection of appropriate individuals to succeed to these positions;

- reviewing and recommending to our board of directors any amendments to our corporate governance policies; and
- reviewing and assessing, at least annually, the performance of the nominating and corporate governance committee and the adequacy of its charter.

Code of Conduct

We have adopted a Code of Conduct that applies to all of our employees, officers (including our principal executive officer, principal financial officer and principal accounting officer or controller, or persons performing similar functions), agents and representatives, including directors and consultants. The full text of our Code of Conduct will be posted on our website at www.fortyseveninc.com. We intend to disclose future amendments to certain provisions of our Code of Conduct, or waivers of such provisions, applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and our directors, on our website identified above. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

Compensation Committee Interlocks and Insider Participation

None of the members of the compensation committee is currently, or has been at any time, one of our officers or employees. None of our executive officers currently serves, or has served during the last calendar year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Non-Employee Director Compensation

Cash Compensation

No cash compensation was paid to our non-employee directors in 2017 for their services as members of the board of directors. In June 2015 we entered into a consulting agreement with each of Dr. Majeti and Dr. Weissman, pursuant to which they are paid an annual consulting fee of $75,000 and $100,000, respectively, for providing input regarding our scientific and clinical development programs. Although we do not have a written policy, we generally reimburse our directors for their reasonable out-of-pocket expenses incurred in attending board of directors and committee meetings.

Equity Incentive Compensation

Kristine M. Ball joined our board of directors in February 2018 and in March 2018 was granted an option to purchase 540,000 shares of our common stock at an exercise price of $1.13 per share. The shares subject to the option will vest on a monthly basis for 48 consecutive months commencing on February 1, 2018, subject to Ms. Ball's continuous service with us. In the event of a change in control (as defined in the 2015 Equity Incentive Plan), any unvested shares subject to this option will fully vest and become exercisable immediately prior to the effective date of such change in control, subject to Ms. Ball's continuous service with us on the effective date of the change in control.

Ian T. Clark joined our board of directors in April 2018 and in May 2018 was granted an option to purchase 980,323 shares of our common stock at an exercise price of $1.13 per share. The shares subject to the option will vest on a monthly basis for 48 consecutive months commencing on April 28, 2018, subject to Mr. Clark's continuous service with us. In the event of a change in control, any unvested shares subject to this option will fully vest and become exercisable immediately prior to the effective date of such change in control, subject to Mr. Clark's continuous service with us on the effective date of the change in control.

In April 2018, each of Dr. Bird, Dr. Henner, Dr. Majeti, Mr. Schaepe and Dr. Weissman was granted an option to purchase 160,000 shares of our common stock at an exercise price of $1.13 per share. The shares subject to these options will vest on a monthly basis for 36 consecutive months commencing on the date of the closing of this offering, subject to each non-employee director's respective continuous service with us. In the event of a change in control, any unvested shares subject to these options will fully vest and become exercisable immediately prior to the effective date of such change in control, subject to the non-employee director's continuous service with us on the effective date of the change in control.

Non-Employee Director Compensation Policy

We have adopted a non-employee director compensation policy, pursuant to which our non-employee directors will be eligible to receive cash compensation for service on our board of directors and committees of our board of directors.

Commencing with the first calendar quarter following the closing of our initial public offering, each non-employee director will receive an annual cash retainer of $35,000 for serving on our board of directors.

The lead director of our board of directors will be entitled to a cash retainer of $55,000 in lieu of the annual retainer received by other non-employee directors for serving as our lead director.

The chairperson and members of the three committees of our board of directors will be entitled to the following additional annual cash retainers:

Board Committee	Chairperson Fee	Member Fee
Audit Committee	$ 15,000	$ 7,500
Compensation Committee	10,000	5,000
Nominating and Corporate Governance Committee	7,750	4,000

All annual cash compensation amounts will be payable in equal quarterly installments in arrears, on the last day of each fiscal quarter for which the service occurred, pro-rated based on the days served in the applicable fiscal quarter.

EXECUTIVE COMPENSATION

Our named executive officers for the year ended December 31, 2017, consisting of our principal executive officer and the next two most highly compensated executive officers, were:

- Mark A. McCamish, M.D., our President and Chief Executive Officer;
- Chris H. Takimoto, M.D., our Chief Medical Officer; and
- Craig S. Gibbs, Ph.D., our Chief Business Officer.

2017 Summary Compensation Table

The following table sets forth all of the compensation awarded to or earned by or paid to our named executive officers during 2017.

Name and Principal Position	Year	Salary	Option Awards(1)	All Other Compensation	Total
Mark A. McCamish, M.D. President and Chief Executive Officer	2017	$266,666	$3,378,384	$ 32,351(2)(3)	$3,677,401
Chris H. Takimoto, M.D. Chief Medical Officer	2017	386,776	314,176	14,999(2)(4)	715,951
Craig S. Gibbs, Ph.D. Chief Business Officer	2017	313,620	226,832	9,409(2)	549,861

(1) Amounts reported represent the aggregate grant date fair value of stock options granted to our named executive officers during 2017 under our 2015 Equity Incentive Plan, computed in accordance with ASC Topic 718. Assumptions used in the calculation of these amounts are included in Note 3 to our financial statements included in this prospectus. Our named executive officers will only realize compensation to the extent the trading price of our common stock is greater than the exercise price of such stock options.

(2) Includes contributions by us to the named executive officer's 401(k) plan account.

(3) Includes $24,351 in reimbursement paid to Dr. McCamish for housing expenses.

(4) Includes $3,396 in reimbursement paid to Dr. Takimoto for moving and relocation expenses.

Outstanding Equity Awards as of December 31, 2017

The following table provides information about outstanding equity awards held by each of our named executive officers at December 31, 2017. All awards were granted under our 2015 Equity Incentive Plan.

			Option Awards				Stock Awards	
Name	Grant Date	Vesting Commencement Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price	Option Expiration Date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Vested
Mark A. McCamish, M.D.	06/08/2017	05/01/2017	—	3,750,000(1)(7)	$ 0.63	06/07/2027	—	—
	06/08/2017	05/01/2017	—	—	0.63	06/07/2027	250,000(9)	$ 170,000(10)
	08/15/2017	08/15/2017	1,252,236(2)(7)	—	0.63	08/14/2027	—	—
	11/28/2017	11/08/2017	2,590,354(2)(7)	—	0.68	11/27/2027	—	—
Chris H. Takimoto, M.D.	02/26/2016	02/08/2016	1,300,000(3)(8)	—	0.26	02/25/2026	—	—
	08/15/2017	08/15/2017	100,000(4)(8)	—	0.63	08/14/2027	—	—
	11/28/2017	11/08/2017	600,000(4)(8)	—	0.68	11/27/2027	—	—
Craig S. Gibbs, Ph.D.	01/22/2016	09/14/2015	875,000(5)	—	0.26	01/21/2026	—	—
	11/28/2017	11/08/2017	500,000(6)	—	0.68	11/27/2027	—	—

(1) 1/4th of the shares subject to the option will vest one year after the vesting commencement date and 1/48th of the shares subject to the option will vest monthly thereafter.

(2) 1/48th of the shares subject to the option vest monthly measured from the vesting commencement date. As of December 31, 2017, 104,353 shares and 53,965 shares are vested, respectively.

(3) 1/4th of the shares subject to the option will vest one year after the vesting commencement date and 1/48th of the shares subject to the option will vest monthly thereafter. As of December 31, 2017, 595,833 shares are vested.

(4) 1/48th of the shares subject to the option vest monthly measured from the vesting commencement date. As of December 31, 2017, 8,333 shares and 12,500 shares are vested, respectively.

(5) 1/4th of the shares subject to the option will vest one year after the vesting commencement date and 1/48th of the shares subject to the option will vest monthly thereafter. As of December 31, 2017, 109,375 shares are vested.

(6) 1/48th of the shares subject to the option vest monthly measured from the vesting commencement date. As of December 31, 2017, 10,416 shares are vested.

(7) During the 12 months following a change in control, if (a) Dr. McCamish is involuntarily terminated without cause or (b) Dr. McCamish resigns for good reason and in either case, other than as a result of death or disability, and provided such termination constitutes a separation from service, without regard to any alternative definition thereunder), then the vesting and exercisability of the option shall be accelerated such that 100% of the total unvested shares under the option shall be vested.

(8) During the 12 months following a change in control and the three months preceding a change of control, if (a) Dr. Takimoto is involuntarily terminated without cause or (b) Dr. Takimoto resigns for good reason and in either case, other than as a result of death or disability, and provided such termination constitutes a separation from service, without regard to any alternative definition thereunder), then the vesting and exercisability of the option shall be accelerated such that 50% of the total unvested shares under the option shall be vested.

(9) The shares were acquired pursuant to an early exercise provision and remain subject to our repurchase right in accordance with the vesting schedule of the options at the lower of fair market value or the exercise price of $0.63 per share. 1/4th of the shares will vest one year after the vesting commencement date and 1/48th of the shares subject to the option will vest monthly thereafter. During the 12 months following a change in control, if (a) Dr. McCamish is involuntarily terminated without cause or (b) Dr. McCamish resigns for

good reason and in either case, other than as a result of death or disability, and provided such termination constitutes a separation from service, without regard to any alternative definition thereunder), then the vesting and exercisability of the shares shall be accelerated such that 100% of the total unvested shares shall be vested.

(10) Based on an estimated fair market value of $0.68 per share as of December 31, 2017.

Emerging Growth Company Status

We are an "emerging growth company," as defined in the JOBS Act. As an emerging growth company we will be exempt from certain requirements related to executive compensation, including the requirements to hold a nonbinding advisory vote on executive compensation and to provide information relating to the ratio of total compensation of our President and Chief Executive Officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Act.

Pension Benefits

Our named executive officers did not participate in, or otherwise receive any benefits under, any pension or retirement plan sponsored by us during 2017.

Nonqualified Deferred Compensation

Our named executive officers did not participate in, or earn any benefits under, a nonqualified deferred compensation plan sponsored by us during 2017.

2018 Annual Bonus Plan

Our compensation committee adopted our Forty Seven, Inc. 2018 Annual Bonus Plan, or 2018 Bonus Plan, which provides for a cash bonus for our officers, including our Named Executive Officers. Under our 2018 Bonus Plan, the board of directors determined the individual and corporate performance goals applicable to any award for 2018. Each eligible participant has an opportunity to earn an annual payment based on achievement of these individual and corporate performance goals. Performance goals for individuals are assessed on a case by case basis. Individuals are eligible for a merit-based bonus in an amount set based on employment grade, which is then multiplied by a percentage, up to 100%, based on achievement of corporate performance goals. This is then eligible for a discretionary adjustment, up to 150%, based on individual performance.

Employment, Severance and Change in Control Agreements

We have offer letters with each of our executive officers. The offer letters generally provide for at-will employment and set forth the executive officer's initial base salary, eligibility for employee benefits and confirmation of the terms of previously issued equity grants, including in some cases severance benefits on a qualifying termination of employment. In addition, each of our executive officers has executed our standard proprietary information and inventions agreement. The key terms of employment with our named executive officers are described below. See "Executive Compensation—Outstanding Equity Awards as of December 31, 2017" for information on outstanding options as of December 31, 2017 for our named executive officers.

Mark A. McCamish

In November 2016, we entered into an offer letter with Dr. McCamish, our President and Chief Executive Officer. Pursuant to the offer letter, Dr. McCamish's initial base salary was established at $400,000 per year. In addition, Dr. McCamish was initially eligible to receive an annual cash bonus of up to 40% of his annual base salary based upon achievement of mutually agreed upon performance objectives and other criteria determined by

our board of directors. He is entitled to reimbursement for up to $30,000 per year for commuting and living expenses in connection with his work at our headquarters.

In April 2018, Dr. McCamish was granted an option to purchase 1,430,000 shares at an exercise price of $1.13 per share. Provided that the registration statement, of which this prospectus forms a part, is declared effective or a change in control occurs prior to March 1, 2019, the shares subject to this option will vest on a monthly basis for 48 consecutive months commencing on March 1, 2019, subject to Dr. McCamish's continuous service with us.

Ann D. Rhoads

In March 2018, we entered into an offer letter with Ms. Rhoads, our Chief Financial Officer. Pursuant to the offer letter, Ms. Rhoads' initial base salary was established at $350,000 per year. Ms. Rhoads also received a one-time retention bonus of $40,000 subject to proration until the completion of 12 months of employment. Ms. Rhoads is entitled to reimbursement for up to $36,000 per year for travel expenses in connection with her work at our headquarters. In April 2018, Ms. Rhoads was granted (i) an option to purchase 1,093,505 shares of our common stock, at an exercise price of $1.13 per share, vesting as to 207,005 shares on the one-year anniversary of her employment commencement date and the remaining shares will vest thereafter on a monthly basis for 36 consecutive months, and (ii) an option to purchase 88,495 shares of our common stock, at an exercise price of $1.13 per share, vesting in full one year after her employment commencement date, in each case subject to Ms. Rhoads' continuous service with us.

In April 2018, Ms. Rhoads was granted an additional option to purchase 580,000 shares at an exercise price of $1.13 per share. Provided that the registration statement, of which this prospectus forms a part is declared effective or a change in control occurs prior to March 1, 2019, the shares subject to this option will vest on a monthly basis for 48 consecutive months commencing on March 1, 2019, subject to Ms. Rhoads' continuous service with us.

Chris H. Takimoto

In January 2016, we entered into an employment agreement with Dr. Takimoto, our Chief Medical Officer. Pursuant to the employment agreement, Dr. Takimoto's initial base salary was established at $375,000 per year.

In April 2018, Dr. Takimoto was granted an option to purchase 435,000 shares at an exercise price of $1.13 per share. Provided that the registration statement, of which this prospectus forms a part is declared effective or a change in control occurs prior to March 1, 2019, the shares subject to this option will vest on a monthly basis for 48 consecutive months commencing on March 1, 2019, subject to Dr. Takimoto's continuous service with us.

Craig S. Gibbs

In August 2015, we entered into an offer letter with Dr. Gibbs, our Chief Business Officer. Pursuant to the offer letter, Dr. Gibbs' initial base salary was established at $300,000 per year. Dr. Gibbs' base salary for 2017 is $313,620 per year.

In April 2018, Dr. Gibbs was granted an option to purchase 565,000 shares at an exercise price of $1.13 per share. Provided that the registration statement, of which this prospectus forms a part is declared effective or a change in control occurs prior to March 1, 2019, the shares subject to this option will vest on a monthly basis for 48 consecutive months commencing on March 1, 2019, subject to Dr. Gibbs' continuous service with us.

Executive Severance and Change in Control Plan

In April 2018, the compensation committee of our board of directors adopted an Executive Severance and Change in Control Plan that provides severance benefits to each of our executive officers and vice presidents,

including our named executive officers. The benefits provided under the Executive Severance and Change in Control Plan supersede any similar severance benefits described in a participant's offer letter or employment agreement. Participants in our Executive Severance and Change in Control Plan will be entitled to receive a lump sum cash payment (12 months base salary for our Chief Executive Officer, nine months base salary for our executive officers or six months base salary for all other participants) upon an involuntary termination without cause. In addition, in the event that such termination occurs, or the participant resigns for good reason, in connection with or within 12 months following a change in control, the participant will be entitled to receive a lump sum cash payment (18 months base salary for our Chief Executive Officer, 12 months base salary for our executive officers or nine months base salary for all other participants) and any unvested portion of an equity award granted to participant will fully vest and become exercisable immediately prior to the effective date of such change in control, subject to participant's continuous service with us. All such severance benefits are subject to the participant signing a general release of all known and unknown claims in substantially the form provided in the Executive Severance and Change in Control Plan.

Employee Benefit Plans

We believe that our ability to grant equity-based awards is a valuable and necessary compensation tool that aligns the long-term financial interests of our employees, consultants and directors with the financial interests of our stockholders. In addition, we believe that our ability to grant options and other equity-based awards helps us to attract, retain and motivate employees, consultants and directors and encourages them to devote their best efforts to our business and financial success. The principal features of our equity incentive plans and our 401(k) plan are summarized below. These summaries are qualified in their entirety by reference to the actual text of the plans, which, other than the 401(k) plan, are filed as exhibits to the registration statement of which this prospectus is a part.

2018 Equity Incentive Plan

Our board of directors adopted our 2018 Equity Incentive Plan, or the 2018 Plan, in 2018, and our stockholders approved the 2018 Plan in 2018. Our 2018 Plan provides for the grant of incentive stock options to our employees and for the grant of nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards and other forms of equity compensation to our employees, directors and consultants.

Authorized Shares

We have initially reserved shares of common stock for issuance under the 2018 Plan. In addition, the number of shares of common stock reserved for issuance under our 2018 Plan will automatically increase on the first day of January for a period of up to ten years, commencing on January 1, 2019, in an amount equal to % of the total number of shares of our capital stock outstanding on the last day of the preceding year, or a lesser number of shares determined by our board of directors. The maximum number of shares of common stock that may be issued upon the exercise of incentive stock options under our 2018 Plan is .

Shares subject to stock awards granted under our 2018 Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, do not reduce the number of shares available for issuance under our 2018 Plan. Additionally, shares issued pursuant to stock awards under our 2018 Plan that we repurchase or that are forfeited, as well as shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award, become available for future grant under our 2018 Plan.

Plan Administration

Our board of directors, or a duly authorized committee of our board of directors, will administer our 2018 Plan. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards and (2) determine the number of shares subject

to such stock awards. Under the 2018 Plan, our board of directors has the authority to determine the terms of awards, including recipients, the exercise, purchase or strike price of stock awards, if any, the number of shares subject to each stock award, the fair market value of a share of common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, the form of consideration, if any, payable upon exercise or settlement of the award and the terms of the award agreements.

The board of directors may also modify outstanding awards under our 2018 Plan, with the consent of any adversely affected participant. The board of directors has the authority to reprice any outstanding option or stock appreciation right, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options

Incentive stock options and nonstatutory stock options are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for stock options, within the terms and conditions of the 2018 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of common stock on the date of grant. Options granted under the 2018 Plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2018 Plan, up to a maximum of ten years. Unless the terms of an option holder's stock option agreement provide otherwise, if an option holder's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the option holder may generally exercise any vested options for a period of three months following the option holder's cessation of service. The option term may be extended in the event that exercise of the option or sale of the underlying shares following such a termination of service is prohibited by applicable securities laws or by our insider trading policy. If an option holder's service relationship with us or any of our affiliates ceases due to disability or death, or an option holder dies within a certain period following cessation of service, the option holder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. Options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

The plan administrator will determine acceptable consideration for the purchase of common stock issued upon the exercise of a stock option, which may include the following methods: (1) cash, check, bank draft or money order; (2) a broker-assisted cashless exercise procedure; (3) the tender of shares of common stock previously owned by the option holder; (4) if the option is a nonstatutory stock option, by a net exercise arrangement; and (5) other legal consideration set forth in the applicable award agreement.

In general, options are not transferable except by will, the laws of descent and distribution, or as otherwise provided by the plan administrator under our 2018 Plan. An option holder may designate a beneficiary, however, who may exercise the option following the option holder's death.

Tax Limitations on Incentive Stock Options

The aggregate fair market value, determined at the time of grant, of common stock with respect to incentive stock options that are exercisable for the first time by an option holder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as nonstatutory stock options. No incentive stock option may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant and (2) the term of the incentive stock option does not exceed five years from the date of grant.

Restricted Stock Unit Awards

Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Restricted Stock Awards

Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The plan administrator determines the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ceases for any reason, we may receive through a forfeiture condition or a repurchase right any or all of the shares of common stock held by the participant that have not vested as of the date the participant terminates service with us.

Stock Appreciation Rights

Stock appreciation rights are granted pursuant to stock appreciation grant agreements adopted by the plan administrator. The plan administrator determines the purchase price or strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of common stock on the date of grant. Upon the exercise of a stock appreciation right, we will pay the participant an amount equal to the product of (1) the excess, if any, of the per share fair market value of common stock on the date of exercise over the purchase price or strike price and (2) the number of shares of common stock with respect to which the stock appreciation right is exercised. This amount may be paid in shares of common stock, in cash, in any combination of cash and shares of common stock or in any other form of consideration, as determined by the plan administrator and set forth in the award agreement. A stock appreciation right granted under the 2018 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2018 Plan, which may be up to a maximum of ten years. Unless the terms of a participant's stock appreciation right agreement provides otherwise, if a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. The term of the stock appreciation right may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws or by our insider trading policy. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant (or, if applicable, a beneficiary) may generally exercise any vested stock appreciation right for a period of 12 months (in the case of disability) or 18 months (in the case of death). Stock appreciation rights generally terminate immediately upon the occurrence of the event giving rise to the termination of the individual for cause. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards

The 2018 Plan permits the grant of performance-based stock and cash awards. Our compensation committee may structure awards so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period.

Our compensation committee may establish performance goals by selecting from one or more of the following performance criteria: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) earnings before interest, taxes, depreciation, amortization and legal settlements; (5) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (6) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (7) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (8) total stockholder return; (9) return on equity or average stockholder's equity; (10) return on assets, investment or capital employed; (11) stock price; (12) margin (including gross margin); (13) income (before or after taxes); (14) operating income; (15) operating income after taxes; (16) pre-tax profit; (17) operating cash flow; (18) sales or revenue targets; (19) increases in revenue or product revenue; (20) expenses and cost reduction goals; (21) improvement in or attainment of working capital levels; (22) economic value added (or an equivalent metric); (23) market share; (24) cash flow; (25) cash flow per share; (26) share price performance; (27) debt reduction; (28) implementation or completion of projects or processes; (29) stockholders' equity; (30) capital expenditures; (31) debt levels; (32) operating profit or net operating profit; (33) workforce diversity; (34) growth of net income or operating income; (35) billings; (36) bookings; (37) employee retention; (38) budget management; (39) partner satisfaction; (40) entry into or completion of strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property and acquisitions); and (41) other measures of performance selected by board of directors.

Our board of directors may establish performance goals on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless otherwise specified by our board of directors (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the performance goals are established, our board of directors will appropriately make adjustments in the method of calculating the attainment of the performance goals as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock-based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; and (12) to exclude the effect of any other unusual, nonrecurring gain or loss or other extraordinary item.

Other Stock Awards

The plan administrator may grant other awards based in whole or in part by reference to common stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to Capital Structure

In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split, or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2018 Plan, (2) the class and maximum number of shares by which the share

reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued upon the exercise of incentive stock options, and (4) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions

Our 2018 Plan provides that in the event of certain specified significant corporate transactions, including: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) the consummation of a merger or consolidation where we do not survive the transaction and (4) the consummation of a merger or consolidation where we do survive the transaction but the shares of common stock outstanding prior to such transaction are converted or exchanged into other property by virtue of the transaction, each outstanding award will be treated as the administrator determines unless otherwise provided in an award agreement or other written agreement between us and the award holder. The administrator may (1) arrange for the assumption, continuation or substitution of a stock award by a successor corporation; (2) arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation; (3) accelerate the vesting, in whole or in part, of the stock award and provide for its termination prior to the transaction; (4) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us; (5) cancel or arrange for the cancellation of the stock award prior to the transaction in exchange for a cash payment, if any, determined by the board; or (6) make a payment, in the form determined by the board, equal to the excess, if any, of the value of the property the participant would have received upon exercise of the awards prior to the transaction over any exercise price payable by the participant in connection with the exercise. The plan administrator is not obligated to treat all stock awards or portions of stock awards, even those that are of the same type, in the same manner.

In the event of a change in control, awards granted under the 2018 Plan will not receive automatic acceleration of vesting and exercisability, although this treatment may be provided for in an award agreement. Under the 2018 Plan, a change in control is defined to include (1) the acquisition of any person of more than 50% of the combined voting power of our then outstanding stock; (2) a merger, consolidation or similar transaction in which our stockholders immediately prior to the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity); (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets to an entity that did not previously hold more than 50% of the voting power over our capital stock and (4) individuals who constitute our incumbent board of directors ceasing to constitute at least a majority of our board of directors.

Transferability

A participant may not transfer stock awards under our 2018 Plan other than by will, the laws of descent and distribution or as otherwise provided under our 2018 Plan.

Plan Amendment or Termination

Our board of directors has the authority to amend, suspend, or terminate our 2018 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No incentive stock options may be granted after the tenth anniversary of the date our board of directors adopted our 2018 Plan. No stock awards may be granted under our 2018 Plan while it is suspended or after it is terminated.

2015 Equity Incentive Plan

Our board of directors adopted our 2015 Plan in May 2015 and our stockholders approved the 2015 Plan in November 2015. Our 2015 Plan was amended most recently in April 2018. Our 2015 Plan allows for the grant of incentive stock options to employees, including employees of any parent or subsidiary, and for the grant of

nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards and other stock awards to employees, directors and consultants, including employees and consultants of our affiliates.

Our 2018 Plan will become effective on the execution of the underwriting agreement related to this offering. As a result, we do not expect to grant any additional awards under the 2015 Plan following that date. Any awards granted under the 2015 Plan will remain subject to the terms of our 2015 Plan and applicable award agreements.

Authorized Shares

The maximum number of shares of common stock that may be issued under our 2015 Plan is 23,579,943. Shares subject to stock awards granted under our 2015 Plan that expire, are forfeited, or terminate without being issued in full or are settled in cash do not reduce the number of shares available for issuance under our 2015 Plan. Additionally, shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award become available for future grant under our 2015 Plan.

Plan Administration

Our board of directors or a duly authorized committee of our board of directors administers our 2015 Plan and the stock awards granted under it. Our board of directors may also delegate to one or more of our officers the authority to (1) designate non-officer employees to receive specified stock awards and (2) determine the number of shares subject to such stock awards. Under our 2015 Plan, the board of directors has the authority to determine and amend the terms of awards and underlying agreements, including: recipients; the exercise, purchase or strike price of stock awards, if any; the number of shares subject to each stock award; the vesting schedule applicable to the awards, together with any vesting acceleration; and the form of consideration, if any, payable on exercise or settlement of the award.

Under the 2015 Plan, the board of directors also generally has the authority to effect, with the consent of any adversely affected participant: the reduction of the exercise price of any outstanding equity award; the cancellation of any outstanding equity award and the grant in substitution therefore of other awards, cash, or other consideration; or any other action that is treated as a repricing under generally accepted accounting principles.

Corporate Transactions

Our 2015 Plan provides that in the event of certain specified significant corporate transactions, generally including: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of at least 90% of our outstanding securities, (3) the consummation of a merger or consolidation where we do not survive the transaction, and (4) the consummation of a merger or consolidation where we do survive the transaction but the shares of common stock outstanding before such transaction are converted or exchanged into other property by virtue of the transaction, unless otherwise provided in an award agreement or other written agreement between us and the award holder, the administrator may take one or more of the following actions with respect to such stock awards: (1) arrange for the assumption, continuation or substitution of a stock award by a successor corporation, (2) arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation (or the successor corporation's parent company), (3) accelerate the vesting, in whole or in part, of the stock award and provide for its termination before the transaction, (4) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us, (5) cancel or arrange for the cancellation of the stock award before the transaction in exchange for a cash payment, if any, as determined by the board of directors in its sole discretion, or (6) make a payment, in the form determined by the board of directors, equal to the excess, if any, of the value of the property the participant would have received on exercise of the stock award before the transaction over any exercise price payable by the participant in connection with the exercise. The plan administrator is not obligated to treat all stock awards, even those that are of the same type, or all participants, in the same manner.

In the event of a change in control, awards granted under the 2015 Plan will not receive automatic acceleration of vesting and exercisability, although the board of directors may provide for this treatment in an award agreement. Under the 2015 Plan, a change in control is defined to include (1) the acquisition by any person of more than 50% of the combined voting power of our then outstanding stock, (2) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity), (3) our stockholders approve or our board of directors approves a plan of complete dissolution or liquidation or a complete dissolution or liquidation otherwise occurs except for a liquidation into a parent corporation, (4) a sale, lease, exclusive license or other disposition of all or substantially all of the assets to an entity that did not previously hold more than 50% of the voting power of our stock and (5) individuals who constitute our incumbent board of directors ceasing to constitute at least a majority of our board of directors.

Transferability

Under our 2015 Plan, the board of directors may provide for limitations on the transferability of awards, in its sole discretion. Option awards are generally not transferable other than by will or the laws of descent and distribution, except as otherwise provided under our 2015 Plan.

Plan Amendment or Termination. Our board of directors has the authority to amend, suspend, or terminate our 2015 Plan, although certain material amendments require the approval of our stockholders, and amendments that would impair the rights of any participant require the consent of that participant. No stock awards may be granted under our 2015 Plan after it is terminated.

2018 Employee Stock Purchase Plan

Our board of directors adopted our 2018 Employee Stock Purchase Plan, or the ESPP in 2018, and our stockholders approved our ESPP in 2018. The ESPP will become effective upon the execution of the underwriting agreement related to this offering. The purpose of the ESPP is to secure the services of new employees, to retain the services of existing employees, and to provide incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code for U.S. employees. In addition, the ESPP authorizes grants of purchase rights that do not comply with Section 423 of the Code under a separate non-423 component. In particular, where such purchase rights are granted to any employees who are foreign nationals or employed or located outside the United States, our board of directors may adopt rules that are beyond the scope of Section 423 of the Code.

Share Reserve. Following this offering, the ESPP authorizes the issuance of shares of common stock under purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of common stock reserved for issuance will automatically increase on January 1st of each year, beginning on January 1, 2019 (assuming the ESPP becomes effective in 2018) through January 1, 2028, by the lesser of (1) % of the total number of shares of common stock outstanding on the last day of the calendar month before the date of the automatic increase, and (2) shares; provided that before the date of any such increase, our board of directors may determine that such increase will be less than the amount set forth in clauses (1) and (2). As of the date hereof, no shares of common stock have been purchased under the ESPP.

Administration. Our board of directors has delegated its authority to administer the ESPP to our compensation committee. The ESPP is implemented through a series of offerings under which eligible employees are granted purchase rights to purchase shares of common stock on specified dates during such offerings. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of common stock will be purchased for employees participating in the offering. We currently intend to have six month offerings with one purchase period per offering, except that the first purchase period under our

first offering may be longer than six months, depending on the date on which the underwriting agreement relating to this offering becomes effective. An offering under the ESPP may be terminated under certain circumstances.

Payroll Deduction. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings (as defined in the ESPP) for the purchase of common stock under the ESPP. Unless otherwise determined by our board of directors, common stock will be purchased for the accounts of employees participating in the ESPP at a price per share that is at least the lesser of (1) 85% of the fair market value of a share of common stock on the first date of an offering, or (2) 85% of the fair market value of a share of common stock on the date of purchase. For the initial offering, which we expect will commence on the execution and delivery of the underwriting agreement relating to this offering, the fair market value on the first day of the offering period will be the price at which shares of common stock are first sold to the public.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our board of directors, including: (1) being customarily employed for more than 20 hours per week, (2) being customarily employed for more than five months per calendar year, or (3) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of $25,000 worth of common stock based on the fair market value per share of common stock at the beginning of an offering for each year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value under Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or similar transaction, the board of directors will make appropriate adjustments to: (1) the number of shares reserved under the ESPP, (2) the maximum number of shares by which the share reserve may increase automatically each year, (3) the number of shares and purchase price of all outstanding purchase rights, and (4) the number of shares that are subject to purchase limits under ongoing offerings.

Corporate Transactions. In the event of certain significant corporate transactions, including: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) the consummation of a merger or consolidation where we do not survive the transaction, and (4) the consummation of a merger or consolidation where we do survive the transaction but the shares of common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction, any then-outstanding rights to purchase our stock under the ESPP may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue, or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of common stock within ten business days before such corporate transaction, and such purchase rights will terminate immediately.

ESPP Amendment or Termination. Our board of directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

Health and Welfare Benefits

We pay premiums for medical insurance, dental insurance and vision insurance for all full-time employees, including our named executive officers. These benefits are available to all full-time employees, subject to applicable laws.

401(k) Plan

We maintain a defined contribution retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees may defer eligible compensation on a pre-tax, or after-tax, basis, up to the statutorily prescribed annual limits on contributions under the Code. Contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are immediately and fully vested in their contributions. The 401(k) plan is intended to be qualified under Section 401(a) of the Code with the 401(k) plan's related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan are deductible by us when made, and contributions and earnings on those amounts are not taxable to the employees until withdrawn or distributed from the 401(k) plan. Pursuant to our 401(k) plan, during 2017, we made 100% matching contributions on up to 3% of an employee's eligible compensation deferred.

Limitations on Liability and Indemnification Matters

Upon the closing of this offering, our amended and restated certificate of incorporation will contain provisions that allow us to limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation will provide us with the authority to, and our amended and restated bylaws will provide that we are required to, indemnify our directors and executive officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also provide that, upon satisfaction of certain conditions, we shall advance expenses incurred by a director or executive officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee, or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our other officers and employees when determined appropriate by our board of directors. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the board of directors. With certain exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding.

We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of common stock on a periodic basis. Under a Rule 10b5-1 plan,

a broker executes trades pursuant to parameters established by the director or executive officer when entering into the plan, without further direction from them. The director or executive officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information, subject to compliance with the terms of our insider trading policy. Prior to the end of the 180th day after the date of this offering (subject to potential early release or termination without notice), the sale of any shares under such plan would be subject to the lock-up agreement that the director or executive officer has entered into with Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC on behalf of the underwriters.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a summary of transactions since January 1, 2015, to which we have been a participant in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers or holders of more than five percent of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest., other than compensation arrangements which are described in the sections titled “Executive Compensation” and “Management—Non-Employee Director Compensation.”

We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm’s-length transactions.

Convertible Note Financing

From June 2015 through November 2015, we issued and sold convertible promissory notes in the aggregate principal amount of $900,000. The convertible promissory notes accrued interest at a rate of 5% per annum. In November 2015, the aggregate principal amount of the convertible promissory notes and accrued interest totaling approximately $909,349 were converted into 909,349 shares of Series A-1 preferred stock at a conversion price of $1.00. The following table summarizes the convertible promissory notes issued to holders of more than five percent of our capital stock and their affiliated entities and our directors. None of our executive officers were issued convertible promissory notes.

Name of Stockholder	Loan Amount
Entities affiliated with Lightspeed Venture Partners(1)	$ 450,000
Sutter Hill Ventures(2)	450,000

(1) Includes convertible promissory notes purchased by Lightspeed Venture Partners X, L.P. and Lightspeed Affiliates X, L.P. Mr. Schaepe, a member of our board of directors, is a partner of Lightspeed General Partner X, L.P., the general partner of Lightspeed Venture Partners X, L.P. and Lightspeed Affiliates X, L.P., and a director of Lightspeed Ultimate General Partner X, Ltd., the general partner of Lightspeed General Partner X, L.P..

(2) Dr. Bird, a member of our board of directors, is a managing director and a member of the management committee and the general partner of Sutter Hill Ventures, a California Limited Partnership.

Preferred Stock Financings

In November 2015 and from February 2016 through April 2016, we issued and sold an aggregate of 34,400,000 shares of Series A-1 preferred stock at a purchase price of $1.00 per share for an aggregate purchase price of approximately $34.4 million.

In February 2017 and March 2017, we issued and sold an aggregate of 32,454,663 shares of our Series A-2 preferred stock at a purchase price of $1.2448132 per share for an aggregate purchase price of approximately $40.4 million.

In October 2017, we issued and sold an aggregate of 58,818,912 shares of our Series B preferred stock at a purchase price of $1.2751 per share for an aggregate purchase price of approximately $75.0 million.

The following table summarizes the Series A-1, Series A-2 and Series B preferred stock purchased by holders of more than five percent of our capital stock and their affiliated entities and our directors. None of our executive officers purchased shares of preferred stock.

Name of Stockholder	Series A-1 Preferred Stock	Series A-2 Preferred Stock	Series B Preferred Stock	Aggregate Purchase Price
Entities affiliated with Lightspeed Venture Partners(1)	10,909,943	8,785,943	10,195,279	$ 34,846,801
Entities and individuals affiliated with Sutter Hill Ventures(2)	10,909,943	8,785,943	10,195,279	34,846,801
Clarus Lifesciences III, L.P.(3)	7,273,296	5,857,295	14,900,792	33,564,534
Investment advisory clients of Wellington Management Company, LLP(4)	—	—	15,685,044	20,000,000
Entities affiliated with GV(5)	4,000,000	4,016,666	3,964,575	14,055,229

(1) Includes shares of preferred stock purchased by (a) Lightspeed Venture Partners X, L.P., (b) Lightspeed Affiliates X, L.P. and (c) Lightspeed Venture Partners Select II, L.P. Mr. Schaepe, a member of our board of directors, is a partner of Lightspeed General Partner Select II, L.P., the general partner of Lightspeed Venture Partners Select II, L.P., and a director of Lightspeed Ultimate General Partner Select II, Ltd., the general partner of Lightspeed General Partner Select II, L.P., and a partner of Lightspeed General Partner X, L.P., the general partner of Lightspeed Venture Partners X, L.P. and Lightspeed Affiliates X, L.P., and a director of Lightspeed Ultimate General Partner X, Ltd., the general partner of Lightspeed General Partner X, L.P.

(2) Includes shares of preferred stock purchased by (a) Sutter Hill Ventures, a California Limited Partnership, or SHV (b) entities affiliated with Jeffrey W. Bird and (c) individuals affiliated with SHV and entities affiliated with such individuals. Dr. Bird, a member of our board of directors, is a managing director and member of the management committee of the general partner of SHV.

(3) Dr. Henner, a member of our board of directors, is a managing director of Clarus Ventures III, LLC, the general partner of Clarus Ventures III GP, L.P., the general partner of this entity.

(4) Represents shares held by Hadley Harbor Master Investors (Cayman) II L.P.

(5) Includes shares of preferred stock purchased by GV 2015, L.P. and GV 2016, L.P.

Upon the closing of this offering, each share of preferred stock will convert into one share of common stock. For a description of the material rights and privileges of the preferred stock, see Note 7 to our audited financial statements included elsewhere in this prospectus.

Investors Rights Agreement

In October 2017, we entered into an amended and restated investor rights agreement, or IRA, with certain holders of our preferred stock and common stock, including entities affiliated with Lightspeed Venture Partners, Sutter Hill Ventures and Clarus and including certain members of, and affiliates of, our directors and certain of our executive officers. The IRA provides the holders of our preferred stock with certain registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. Dr. Bird, Dr. Henner and Mr. Schaepe, members of our board of directors, are affiliated with Sutter Hill Ventures, Clarus and Lightspeed Venture Partners, respectively. The IRA also provides these stockholders with information rights, which will terminate upon the closing of this offering, and a right of first refusal with regard to certain issuances of our capital stock, which will not apply to, and will terminate upon, the closing of, this offering. After the closing of this offering, the holders of 125,673,575 shares of common stock issuable on conversion of outstanding preferred stock, will be entitled to rights with respect to the registration of their shares of common stock under the Securities Act under this agreement. For a description of these registration rights, see “Description of Capital Stock—Registration Rights.”

Indemnification Agreements

Our amended and restated certificate of incorporation will contain provisions limiting the liability of directors, and our amended and restated bylaws will provide that we will indemnify each of our directors and officers to the fullest extent permitted under Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our employees and other agents when determined appropriate by the board. In addition, we have entered into an indemnification agreement with each of our directors and executive officers, which requires us to indemnify them. For more information regarding these agreements, see "Executive Compensation —Limitations on Liability and Indemnification Matters."

Relationship with Stanford University

In November 2015, we entered into a license agreement with Stanford University, pursuant to which Stanford was issued 7,751,242 shares of common stock. During 2016 and 2017, we made payments to Stanford of $960,722 and $638,954, respectively, under the Stanford license agreement for annual license fees and patent expense reimbursement.

Dr. Weissman and Dr. Majeti, members of our board of directors, are professors at Stanford. Dr. Weissman and Dr. Majeti are co-inventors of some of the patents that we license from Stanford. Under Stanford's policies, as co-inventors Dr. Weissman and Dr. Majeti are entitled to receive a share of any royalties that we pay to Stanford under the agreement with respect to the covered intellectual property. No royalty payments have been made to date.

Offer Letters

We have entered into offer letters or employment agreements with our executive officers. For more information regarding these agreements, see "Executive Compensation—Employment, Severance and Change in Control Agreements."

Equity Grants

We have granted stock options to our executive officers and certain members of our board of directors. For a description of these options, see "Executive Compensation" and "Management—Non-Employee Director Compensation."

Cash Bonus

We have established a cash bonus plan for certain of our executive officers. For a description of this plan, see "Executive Compensation" and "Management—2018 Annual Bonus Plan."

Related-Party Transaction Policy

We have adopted a formal written policy that our executive officers, directors, holders of more than five percent of any class of our voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, will not be permitted to enter into a related-party transaction with us without the prior consent of our audit committee, or other independent members of our board of directors in the event it is inappropriate for our audit committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of their immediate family members or affiliates, in which the amount involved exceeds $120,000 must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee will consider the relevant facts and circumstances available and deemed relevant to our audit committee, including, but not limited to, whether the transaction will be on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances and the extent of the related-party's interest in the transaction.

All of the transactions described in this section were entered into prior to the adoption of this policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of December 31, 2017:

- each of our named executive officers;
- each of our directors;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock.

We have determined beneficial ownership in accordance with the rules of the SEC and therefore it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable. We have deemed shares of common stock subject to options that are currently exercisable or exercisable within 60 days of December 31, 2017, to be outstanding and to be beneficially owned by the person holding the option for the purpose of computing the percentage ownership of that person but have not treated them as outstanding for the purpose of computing the percentage ownership of any other person.

We have based percentage ownership of common stock before this offering on 177,995,168 shares of common stock outstanding as of December 31, 2017, which includes 125,673,575 shares of common stock resulting from the conversion of all outstanding shares of preferred stock immediately upon the closing of this offering, as if this conversion had occurred as of December 31, 2017. Percentage ownership of common stock after this offering assumes the sale of shares of common stock in this offering and no exercise of the underwriters' over-allotment option.

Unless otherwise indicated, the address for each beneficial owner listed in the table below is c/o Forty Seven, Inc., 1490 O'Brien Drive, Suite A, Menlo Park, California 94025.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percent of Shares Beneficially Owned	
		Before the Offering	After the Offering
Principal Stockholders:			
Entities affiliated with Lightspeed Ventures Partners(1)	29,891,165	16.8%	%
Entities and individuals affiliated with Sutter Hill Ventures(2)	29,891,165	16.8	
Clarus Lifesciences III, L.P.(3)	28,031,383	15.7	
Investment advisory clients of Wellington Management Company, LLP(4)	15,685,044	8.8	
Entities affiliated with GV(5)	11,981,241	6.7	
Directors and Named Executive Officers:			
Mark A. McCamish, M.D.(6)	4,092,590	2.3	
Chris H. Takimoto, M.D.(7)	2,000,000	1.1	
Craig S. Gibbs, Ph.D.(8)	2,250,000	1.3	
Kristine M. Ball	—	—	
Jeffrey W. Bird, M.D., Ph.D.(9)	29,891,165	16.8	
Ian T. Clark	—	—	
Dennis J. Henner, Ph.D.(10)	28,031,383	15.7	
Ravindra Majeti, M.D.(11)	12,134,264	6.8	
Christopher J. Schaepe(12)	29,891,165	16.8	
Irving L. Weissman, M.D.(13)	17,599,172	9.9	
All directors and executive officers as a group (11 persons)(14)	125,889,739	68.0	

* Represents beneficial ownership of less than 1%.

(1) Consists of (i) 19,176,355 shares held by Lightspeed Venture Partners X, L.P., or Lightspeed X, (ii) 10,195,279 shares held by Lightspeed Venture Partners Select II, L.P., or Lightspeed Select II, and (iii) 519,531 shares held by Lightspeed Affiliates X, L.P., or Lightspeed Affiliates. Lightspeed General Partner X, L.P., or Lightspeed GP X, is the general partner of Lightspeed X and Lightspeed Affiliates. Lightspeed Ultimate General Partner X, Ltd., or Lightspeed UGP X, is the general partner of Lightspeed GP X. Christopher J. Schaepe, Barry Eggers, Ravi Mhatre, Peter Nieh and Jeremy Liew are the directors of Lightspeed UGP X and share voting and dispositive power with respect to the shares held by Lightspeed X. Lightspeed General Partner Select II, L.P., or Select II GP, is the general partner of Lightspeed Select II. Lightspeed Ultimate General Partner Select II, Ltd., or Select II UGP, is the general partner of Select II GP. Mr. Schaepe, Eggers, Mhatre, Nieh and Liew are the directors of Select II UGP and share voting and dispositive power with respect to the shares held by Lightspeed Select II. Messrs. Schaepe, Eggers, Liew, Mhatre and Nieh disclaim beneficial ownership of the shares held by Lightspeed X, Lightspeed Affiliates and Lightspeed Select II except to the extent of their pecuniary interest herein. The address for Lightspeed Venture Partners is 2200 Sand Hill Road, Menlo Park, California 94025.

(2) Consists of (a) 21,480,193 shares held by Sutter Hill Ventures, a California Limited Partnership, or SHV, and (b) an aggregate of 8,410,972 shares that are held by individuals affiliated with SHV and entities associated with such individuals, including the 1,674,335 shares beneficially owned by Dr. Bird and described in Footnote 9. Voting and investment authority over the shares held by SHV are shared by members of the management committee of the general partner of SHV, which consists of Jeffrey W. Bird, Tench Coxe, Stefan A. Dyckerhoff, Samuel J. Pullara III, Michael L. Speiser and James N. White. The address for Sutter Hill Ventures is 755 Page Mill Road, Suite A-200, Palo Alto, California 94304.

(3) Clarus Ventures III GP, L.P., or GPLP, as the sole general partner of Clarus Lifesciences III, L.P., or Clarus, may be deemed to beneficially own certain of the shares held by Clarus. GPLP disclaims beneficial ownership of all shares held by Clarus in which the GPLP does not have an actual pecuniary interest. Clarus Ventures III, LLC, or GPLLC, as the sole general partner of the GPLP, may be deemed to beneficially own certain of the shares held by Clarus. GPLLC disclaims beneficial ownership of all shares held by Clarus in which it does not have an actual pecuniary interest. Each of Dennis J. Henner, a member of our board of directors, Nicholas Galakatos, Robert Liptak, Nicholas Simon, Scott Requadt and Kurt Wheeler, as

individual managing directors of GPLLC, may be deemed to beneficially own certain of the shares held of record by Clarus. Each of Dr. Henner and Messrs. Galakatos, Liptak, Simon, Requadt and Wheeler disclaims beneficial ownership of all shares held of record by Clarus in which he does not have an actual pecuniary interest. The address for Clarus Lifesciences III, L.P. is 101 Main Street, 12th Floor, Cambridge, Massachusetts 02142.

(4) Represents shares held by Hadley Harbor Master Investors (Cayman) II L.P. Wellington Management Company, LLP, or Wellington Management, is an investment adviser registered under the Investment Advisers Act of 1940, as amended, and serves as the advisor to this entity. Wellington Management, in such capacity, may be deemed to share beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of the shares held by its client accounts. The address for Wellington Management Company, LLP is 280 Congress Street, Boston, Massachusetts 02210.

(5) Consists of (i) 8,016,666 shares held by GV 2015, L.P., or GV 2015 and (ii) 3,964,575 shares held by GV 2016, L.P., or GV 2016. Each of GV 2015 GP, L.L.C., the general partner of GV 2015, Alphabet Holdings LLC, or Alphabet Holdings, the sole member of GV 2015 GP, L.L.C., XXVI Holdings Inc., the managing member of Alphabet Holdings, and Alphabet Inc., or Alphabet, the sole stockholder of XXVI Holdings Inc. may be deemed to have sole power to vote or dispose of the shares held by GV 2015. Each of GV 2016 GP, L.P., the general partner of GV 2016, GV 2016 GP, L.L.C., the general partner of GV 2016 GP, L.P., Alphabet Holdings, the sole member of GV 2016 GP, L.L.C., XXVI Holdings Inc., the managing member of Alphabet Holdings and Alphabet, the sole stockholder of XXVI Holdings Inc., may be deemed to have sole power to vote or dispose of the shares held by GV 2016. The address for GV is 1600 Amphitheatre Parkway, Mountain View, California 94043.

(6) Includes (i) 250,000 shares subject to repurchase by us as of March 1, 2018 and (ii) 3,842,590 shares of common stock issuable to Dr. McCamish pursuant to options exercisable within 60 days of December 31, 2017, of which 3,524,164 shares would be subject to repurchase as of such date.

(7) Represents shares of common stock issuable to Dr. Takimoto pursuant to options exercisable within 60 days of December 31, 2017, of which 1,300,000 shares would be subject to repurchase as of such date.

(8) Includes 1,375,000 shares of common stock issuable to Dr. Gibbs pursuant to options exercisable within 60 days of December 31, 2017, of which 1,161,459 shares would be subject to repurchase as of such date.

(9) Includes (i) 5,170 shares held by Jeffrey W. Bird and Christina R. Bird, Co-Trustees of Jeffrey W. and Christina R. Bird Trust U/A/D 10/31/00, or the Bird Trust and (ii) 1,669,165 shares held by NestEgg Holdings, LP, or NestEgg. Dr. Bird is a managing director and member of the management committee of the general partner of SHV and shares voting and investment power over the shares held of record by SHV. Dr. Bird disclaims beneficial ownership of the shares held by the Bird Trust, NestEgg and SHV except to the extent of his pecuniary interest therein. See Footnote 2 above.

(10) Consists of the shares listed in Footnote 3 above. Dr. Henner is a managing director of GPLLC, the general partner of GPLP, the general partner of Clarus. Dr. Henner disclaims beneficial ownership of all the shares held of record by Clarus in which he does not have an actual pecuniary interest.

(11) Includes 3,779,328 shares subject to repurchase by us as of March 1, 2018.

(12) Consists of the shares listed in Footnote 1 above. Mr. Schaepe is a (i) director of Lightspeed X UGP, the general partner of Lightspeed X GP, the general partner of Lightspeed X and Lightspeed Affiliates and (ii) director of Select II UGP, the general partner of Select II GP, the general partner of Lightspeed Select II. Mr. Schaepe disclaims beneficial ownership of the shares held by Lightspeed X, Lightspeed Affiliates and Lightspeed Select II except to the extent of his pecuniary interest herein.

(13) Includes (i) 612,807 shares held by Dr. Weissman, individually, (ii) 16,079,327 shares held by Ann Tsukamoto and Irving Weissman, trustees of The Tsukamoto-Weissman 2011 Trust dated March 16, 2011, as community property and (iii) an aggregate of 907,038 shares held in trusts for the benefit of members of Dr. Weissman's immediate family. Dr. Weissman disclaims beneficial ownership of the shares held in trusts for the benefit of members of his immediate family.

(14) Includes (i) 118,672,149 shares of common stock beneficially owned by the directors and named executive officers, of which 4,029,328 shares are subject to repurchase by us as of March 1, 2018 and (ii) 7,217,590 shares issuable pursuant to options exercisable within 60 days of December 31, 2017, of which 5,985,623 of the shares would be subject to repurchase as of such date.

DESCRIPTION OF CAPITAL STOCK

The description below of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the amended and restated bylaws to be in effect upon the closing of this offering, which are filed as exhibits to the registration statement of which this prospectus is part, and by the applicable provisions of Delaware law.

General

Upon the closing of this offering, our amended and restated certificate of incorporation will authorize us to issue up to shares of common stock, $0.0001 par value per share, and shares of preferred stock, $0.0001 par value per share.

As of December 31, 2017, there were 52,321,593 shares of common stock issued and outstanding, held by 71 stockholders of record.

As of December 31, 2017, after giving effect to the conversion of all outstanding shares of preferred stock into 125,673,575 shares of common stock, there would have been 177,995,168 shares of common stock issued and outstanding, held by 125 stockholders of record.

Common Stock

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Under our amended and restated certificate of incorporation and amended and restated bylaws, our stockholders will not have cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividend Rights

Subject to preferences that may apply to any then-outstanding preferred stock, the holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds. We do not anticipate paying any cash dividends in the foreseeable future.

Liquidation Rights

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Preemptive or Similar Rights

Holders of common stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

As of December 31, 2017, there were 125,673,575 shares of preferred stock outstanding. Upon the closing of this offering, each outstanding share of preferred stock will convert into one share of common stock. On the closing of this offering and under our amended and restated certificate of incorporation, our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. Any issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders would receive dividend payments and payments on liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deterring or preventing a change of control or other corporate action. No shares of preferred stock will be outstanding immediately following the closing of this offering. We have no present plan to issue any shares of preferred stock.

Stock Options

As of December 31, 2017, options to purchase an aggregate of 16,294,994 shares of common stock were outstanding under our 2015 Equity Incentive Plan. Subsequent to December 31, 2017, we granted options to purchase shares of common stock under our 2015 Equity Incentive Plan. As of December 31, 2017, 1,774,598 additional shares of common stock were reserved for future issuance under our 2015 Equity Incentive Plan (excluding options granted subsequent to December 31, 2017), which shares will cease to be available for issuance at the time our 2018 Plan becomes effective in connection with this offering. For additional information regarding the terms of these plans, see the section titled “Executive Compensation —Employee Benefit Plans.”

Registration Rights

We are party to an Investor Rights Agreement, or IRA, which provides that certain holders of shares of common stock, including those shares of common stock that will be issued upon conversion of preferred stock in connection with this offering. These shares are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of the IRA and are described in additional detail below. We, along with entities affiliated with Lightspeed Venture Partners, Sutter Hill Ventures, Clarus and GV, as well as other stockholders, are parties to the IRA. We entered into the IRA in connection with the issuance of Series B preferred stock in October 2017. The following summary discusses certain material provisions of the IRA and is qualified by the full text of the agreement, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Certain stockholders who are party to the IRA have waived their registration rights and the registration rights of the other stockholders who are party to the IRA, in each case, with respect to this offering.

The registration of shares of common stock pursuant to the exercise of registration rights described below would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay the registration expenses (other than underwriting discounts, selling commissions and stock transfer taxes) of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, if we determine in good faith in consultation with the underwriters, we have the right, subject to specified conditions, to limit the number of shares the holders may include. The demand, piggyback and Form S-3 registration rights described below will terminate on the date five years following the closing part of this offering.

Demand Registration Rights

The holders of an aggregate of 125,673,575 shares of common stock issuable upon conversion of outstanding shares of preferred stock will be entitled to certain demand registration rights. Ending on the date 180 days following the effective date of the registration statement of which this prospectus is a part, upon the written request of the holders of more than 50% of our registrable securities then outstanding that we file a registration statement under the Securities Act covering at least 50% of the registrable securities then outstanding, or lesser percent if the anticipated aggregate offering price, net of selling expenses, would exceed $7,500,000, we are obligated to register the sale of all registrable securities that the holders may request in writing to be registered. We are required to effect no more than two registration statements that are declared or ordered effective. We may postpone the filing of a registration statement for up to 120 days once in a 12-month period if in the good faith judgment of our board of directors such registration would be seriously detrimental to us.

Piggyback Registration Rights

The holders of an aggregate of 125,673,575 shares of common stock issuable upon conversion of outstanding shares of preferred stock will be entitled to certain piggyback registration rights. If we register any of our securities for public sale, either for our own account or for the account of other security holders, we will also have to register all registrable securities that the holders of such securities request in writing be registered. This piggyback registration right does not apply to a registration relating to any of our stock plans, stock purchase or similar plan, a transaction under Rule 145 of the Securities Act or a registration related to stock issued upon conversion of debt securities. We, based on consultation with the underwriters of any underwritten offering will have the right to limit the number of shares registered by these holders if the underwriters determine that including all registrable securities will jeopardize the success of the offering.

Form S-3 Registration Rights

The holders of an aggregate of 125,673,575 shares of common stock issuable upon conversion of outstanding shares of preferred stock will be entitled to certain registration rights on Form S-3. The holders of these shares can request that we register all or a portion of their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and the aggregate price to the public of the shares offered is in excess of $1.0 million (net of underwriting discounts and commissions, if any). We are required to effect no more than two Form S-3 registration statements that are declared or ordered effective in any 12-month period. We may postpone the filing of a registration statement for up to 120 days not more than twice in a 12-month period if in the good faith judgment of our board of directors such registration would be seriously detrimental to us.

Anti-Takeover Provisions

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not

have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity or person who, together with the person's affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its amended and restated certificate of incorporation or amended and restated bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Certificate of Incorporation and Bylaws to be in Effect Upon the Closing of this Offering

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least a majority of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;

- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions would require approval by the holders of at least 66 2/3% of the voting power of all of our then-outstanding capital stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock.

Choice of Forum

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a breach of fiduciary duty owed by any director, officer or other employee to us or our stockholders; (iii) any action asserting a claim against us or any director or officer or other employee arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or amended and restated bylaws; or (iv) any action asserting a claim against us or any director or officer or other employee that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

Limitations of Liability and Indemnification

See the section titled "Executive Compensation—Limitation on Liability and Indemnification."

Exchange Listing

Our common stock is currently not listed on any securities exchange. We intend to apply to have our common stock approved for listing on the Nasdaq Global Market under the symbol "FTSV."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be . The transfer agent's address is .

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, no public market existed for our common stock. Future sales of shares of our common stock in the public market after this offering, and the availability of shares for future sale, could adversely affect the market price of our common stock prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nonetheless, sales of substantial amounts of our common stock, or the perception that these sales could occur, could adversely affect prevailing market prices for our common stock and could impair our future ability to raise equity capital.

Based on the number of shares outstanding on December 31, 2017, upon the closing of this offering, shares of common stock will be outstanding, assuming no exercise of the underwriters' over-allotment option, and no exercise of outstanding options. All of the shares of common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act, except for any shares sold to our "affiliates," as that term is defined under Rule 144 under the Securities Act.

The remaining shares of common stock and common stock subject to stock options will be on issuance "restricted securities," as that term is defined in Rule 144 under the Securities Act. Restricted securities may be sold in the public market only if registered under the Securities Act or if they qualify for exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below. Restricted securities may also be sold outside of the United States to non-U.S. persons in accordance with Rule 904 of Regulation S.

Rule 144

In general, persons who have beneficially owned restricted shares of our common stock for at least six months, and any of our affiliates who own either restricted or unrestricted shares of our common stock, are entitled to sell their securities without registration with the SEC under an exemption from registration provided by Rule 144 under the Securities Act.

In general, a person who has beneficially owned restricted shares of our common stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale, (ii) we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale, and (iii) we are current in our Exchange Act reporting at the time of sale. Persons who have beneficially owned restricted shares of our common stock for at least six months, but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares of common stock then outstanding, which will equal approximately shares immediately after the closing of this offering based on the number of shares of common stock outstanding as of December 31, 2017; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case that we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Substantially all of the restricted shares are subject to lock-up agreements as described below and in the section titled "Underwriters."

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and in the section titled "Underwriters" and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Form S-8 Registration Statements

As soon as practicable after the closing of this offering, we intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register the shares of common stock that are issuable pursuant to our 2015 Plan, 2018 Plan and 2018 ESPP. These registration statements will become effective immediately upon filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, the applicable lock-up agreements described below and Rule 144 limitations applicable to affiliates.

Lock-Up Agreements

We and all of our directors and officers, as well as the other holders of substantially all of our common stock and securities convertible into or exercisable or exchangeable for our common stock outstanding immediately upon the closing of this offering, have agreed with Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC on behalf of the underwriters that, for a period ending on and including the 180th day following the date of this prospectus, subject to certain exceptions, we and they will not, directly or indirectly, dispose of any of our common stock or securities convertible into or exercisable or exchangeable for common stock, except with the prior written consent of Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC, in their sole discretion, with or without notice, on behalf of the underwriters. See the section titled "Underwriters" for a more complete description of the lock-up agreements with the underwriters.

In addition to the restrictions contained in the lock-up agreements described above, we have entered into agreements with certain security holders, including our IRA and our standard form of notice of exercise under our 2015 Plan, that contain market stand-off provisions imposing restrictions on the ability of such security holders to offer, sell or transfer our equity securities for a period ending on and including the 180th day following the date of this prospectus.

Registration Rights

Upon the closing of this offering, the holders of 125,673,575 shares of our common stock issuable upon conversion of outstanding shares of preferred stock, or their transferees, will be entitled to certain rights with respect to the registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration. See the section titled "Description of Capital Stock—Registration Rights" for additional information.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax on net investment income, and does not address any estate or gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other U.S. federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, and applicable Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date hereof. These authorities are subject to differing interpretations and may change, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This discussion is limited to non-U.S. holders who purchase our common stock pursuant to this offering and who hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to a particular holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the U.S. federal income tax laws, including:

- certain former citizens or long-term residents of the United States;
- partnerships or other pass-through entities (and investors therein);
- "controlled foreign corporations";
- "passive foreign investment companies";
- corporations that accumulate earnings to avoid U.S. federal income tax;
- banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities;
- tax-exempt organizations and governmental organizations;
- tax-qualified retirement plans;
- persons subject to the alternative minimum tax;
- persons that own, or have owned, actually or constructively, more than 5% of our common stock;
- accrual-method taxpayers subject to special tax accounting rules under Section 451(b) of the Code;
- persons who have elected to mark securities to market; and
- persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy or integrated investment.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our common stock and the partners in such partnerships are urged to consult their tax advisors about the particular U.S. federal income tax consequences to them of holding and disposing of our common stock.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS. IN ADDITION, SIGNIFICANT CHANGES IN U.S. FEDERAL INCOME TAX LAWS WERE RECENTLY ENACTED. YOU SHOULD ALSO CONSULT WITH YOUR TAX ADVISOR WITH RESPECT TO SUCH CHANGES IN U.S. TAX LAW AS WELL AS POTENTIAL CONFORMING CHANGES IN STATE TAX LAWS.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a "U.S. person" or a partnership (including any entity or arrangement treated as a partnership) for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Distributions on Our Common Stock

As described under the section titled "Dividend Policy," we have not paid and do not anticipate paying dividends. However, if we make cash or other property distributions on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's tax basis in our common stock, but not below zero. Any excess will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described under the section titled "—Gain on Disposition of Our Common Stock" below.

Subject to the discussions below regarding effectively connected income, backup withholding and Sections 1471 through 1474 of the Code (commonly referred to as FATCA), dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish us or our paying agent with a valid IRS Form W-8BEN or IRS Form W-8BEN-E (or applicable successor form) including a U.S. taxpayer identification number and certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent before the payment of dividends and must be updated periodically. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Non-U.S. holders that do not provide the required certification on a timely basis, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder's U.S. trade or business (and are attributable to such holder's permanent establishment in the United States if required by an applicable tax treaty), the non-U.S. holder will be exempt from U.S. federal withholding tax. To claim the exemption, the non-U.S. holder must generally furnish a valid IRS Form W-8ECI (or applicable successor form) to the applicable withholding agent.

However, any such effectively connected dividends paid on our common stock generally will be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain on Disposition of Our Common Stock

Subject to the discussions below regarding backup withholding and FATCA, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized on the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "United States real property interest" by reason of our status as a United States real property holding corporation, or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock is not regularly traded on an established securities market during the calendar year in which the sale or other disposition occurs.

Determining whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests. We believe that we are not currently and do not anticipate becoming a USRPHC for U.S. federal income tax purposes, although there can be no assurance we will not in the future become a USRPHC.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Gain described in the second bullet point above will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Annual reports are required to be filed with the IRS and provided to each non-U.S. holder indicating the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect

to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the holder's conduct of a U.S. trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 24% rate, generally will not apply to payments to a non-U.S. holder of dividends on or the gross proceeds of a disposition of our common stock provided the non-U.S. holder furnishes the required certification for its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or certain other requirements are met. Backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a U.S. tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's U.S. federal income tax liability, if any.

Withholding on Foreign Entities

FATCA imposes a U.S. federal withholding tax of 30% on certain payments made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or an exemption applies. FATCA also generally will impose a U.S. federal withholding tax of 30% on certain payments made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying certain direct and indirect U.S. owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. FATCA currently applies to dividends paid on our common stock. FATCA will also apply to gross proceeds from sales or other dispositions of our common stock after December 31, 2018.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

UNDERWRITERS

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares of common stock indicated below:

Name	Number of Shares
Morgan Stanley & Co. LLC	
Credit Suisse Securities (USA) LLC	
Canaccord Genuity LLC	
BTIG, LLC	
Oppenheimer & Co. Inc.	
Total	

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of $ per share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option to purchase up to an additional shares of common stock.

		Total	
	Per Share	No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions to be paid by us:	$	$	$
Proceeds, before expenses, to us	$	$	$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $. We have agreed to reimburse the underwriters for expenses of up to $ relating to clearance of this offering with the Financial Industry Regulatory Authority, Inc. and compliance with state securities or "blue sky" laws.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

We intend to apply to list our common stock on the Nasdaq Global Market under the trading symbol "FTSV."

We and all of our directors and officers and the holders of substantially all of our common stock, stock options and other securities convertible into, exercisable or exchangeable for our common stock outstanding immediately prior to the closing of this offering have agreed that, without the prior written consent of the representatives on behalf of the underwriters, we and they will not, during the period ending on and including the 180th day after the date of this prospectus (the "restricted period"):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;
- file any registration statement with the SEC relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of the representatives on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph are subject to specified exceptions, including, without limitation:

- the sale of shares to the underwriters;
- the issuance by us of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;
- transactions by any person other than us relating to shares of common stock or other securities acquired in this offering or in open market transactions after the closing of this offering, provided that no filing under Section 16(a) of the Exchange Act and no other public or filing is required or voluntarily made in connection with subsequent sales of the common stock or other securities acquired in this offering or such open market transactions;
- transfers of shares of common stock or any security convertible into common stock (a) as a bona fide gift or charitable contribution, (b) to an immediate family member or any trust for the direct or indirect benefit of the person subject to such restrictions or the immediate family of such person, (c) to a trustor or beneficiary of the trust or to the estate of a beneficiary of such trust, or (d) distributions of shares of common stock to limited partners, members, stockholders or holders of similar equity interests of the party making such distribution or to direct or indirect subsidiaries of such party, provided that (i) each

donee or other distributee shall sign and deliver a lock-up letter substantially in the form attached as an exhibit to the underwriting agreement and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of common stock, and no other public announcement or filing, shall be required or shall be voluntarily made during the restricted period;

- in connection with the disposition or transfer of shares of common stock or any security convertible into common stock to us upon the "net" or "cashless" exercise of stock options or other equity awards outstanding as of the date of this prospectus and granted pursuant to an employee benefit plan described in this prospectus, provided that (i) such shares of common stock received upon exercise shall continue to be subject to the restrictions on transfer set forth in the lock-up agreement and (ii) no filing under Section 16(a) of the Exchange Act and no other public announcement or filing shall be required or voluntarily made during the restricted period;
- the exercise solely with cash of stock options outstanding as of the date of this prospectus granted under an employee benefit plan or stock purchase plan described in this prospectus, provided that (i) the shares received upon exercise shall continue to be subject to the restrictions on transfer set forth in the lock-up agreement, (ii) if required, any public report or filing under Section 16(a) of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the exercise of a stock option, that no shares were sold by the reporting person and that the shares received upon exercise are subject to a lock-up agreement with the underwriters, and (iii) no other public announcement or filing shall be required or voluntarily made during the restricted period;
- transfers of shares of common stock or other securities to us in connection with a repurchase by us pursuant to a repurchase right arising upon the termination of the transferee's employment with us pursuant to contractual agreements with us, provided that (i) any filing required by Section 16(a) of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to such repurchase right under such agreement and (ii) no other public announcement or filing shall be required or voluntarily made during the restricted period;
- transfers by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement, provided that (i) any filing required by Section 16(a) of the Exchange Act shall clearly indicate in the footnotes thereto that such transfer is being made pursuant to such court order and that such shares remain subject to a lock-up agreement with the underwriters, and (ii) no other public announcement or filing shall be required or voluntarily made during the restricted period;
- transfers of shares of our common stock or other securities pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of our common stock involving a change of control of our company that has been approved by our board of directors, provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, the securities shall continue to be subject to the restrictions on transfer set forth in the lock-up agreement; and
- the establishment or amendment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period.

The representatives, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A

short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option described above. The underwriters can close out a covered short sale by exercising such option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under such option. The underwriters may also sell shares in excess of such option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our results of operations and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Selling Restrictions

Canada

The shares of our common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares of our common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, or FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Cooley LLP, Palo Alto, California. As of the date of this prospectus, Cooley LLP beneficially owns 195,300 shares of our common stock. In addition, as of the date of this prospectus, GC&H Investments, LLC, an entity that is comprised of partners and associates of Cooley LLP, beneficially owns 134,757 shares of our preferred stock, which shares of preferred stock will be converted into 134,757 shares of common stock upon the closing of this offering. Davis Polk & Wardwell LLP, Menlo Park, California, is representing the underwriters.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2016 and 2017, and for the years then ended, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

CHANGES IN INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Dismissal of Independent Registered Public Accounting Firm

We dismissed PricewaterhouseCoopers LLP, or PwC, as our independent registered public accounting firm on December 5, 2017. The decision to dismiss PwC was approved by our board of directors.

The report of PwC on the financial statements for 2016 contained no adverse opinion or a disclaimer of opinion, and was not qualified or modified as to uncertainty, audit scope or accounting principle.

During 2016, and the subsequent period through December 5, 2017, (1) there were no disagreements (as that term is used in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) between us and PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PwC, would have caused PwC to make reference thereto in its report on our financial statements for the year ended December 31, 2016, and (2) there were no "reportable events" as such term is defined in Item 304(a)(1)(v) of Regulation S-K, except for the material weaknesses identified in our internal control over financial reporting related to our accounting for complex transactions and our timing of recognition of research and development expenses.

We have provided PwC with a copy of the disclosures set forth under the heading "Changes in Independent Registered Public Accounting Firm" included in this prospectus and have requested that PwC furnish a letter addressed to the SEC stating whether or not PwC agrees with statements related to them made by us under the heading "Change in Independent Registered Public Accounting Firm" in this prospectus. A copy of that letter is filed as Exhibit 16.1 to the registration statement of which this prospectus forms a part.

Newly Appointed Independent Registered Public Accounting Firm

We engaged Ernst & Young LLP, or Ernst & Young, as our independent registered public accounting firm on December 19, 2017 to audit our financial statements for 2016 and 2017. The decision to change our principal independent registered public accounting firm was approved by our board of directors.

During 2016, and the subsequent period preceding our engagement of Ernst & Young as our independent registered public accounting firm, we did not consult with Ernst & Young on matters that involved the application of accounting principles to a specified transaction, the type of audit opinion that might be rendered on our financial statements or any other matter that was either the subject of a disagreement or reportable event.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to our company and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the internet at the SEC's website at http://www.sec.gov. You may also read and copy any document we file with the SEC at its public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

Upon the closing of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at www.fortyseveninc.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

FORTY SEVEN, INC.

INDEX TO FINANCIAL STATEMENTS

Years Ended December 31, 2016 and 2017

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Forty Seven, Inc.:

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Forty Seven, Inc. (the Company) as of December 31, 2016 and 2017, and the related statements of operations and comprehensive loss, stockholders' equity, and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2016 and 2017, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2017
San Jose, California
March 22, 2018

FORTY SEVEN, INC.

Balance Sheets
(In thousands, except share and per share data)

	December 31, 2016	December 31, 2017	Pro Forma December 31, 2017 (unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 9,742	$ 24,417	
Short-term investments	—	63,694	
Prepaid expenses and other current assets	3,882	4,450	
Total current assets	13,624	92,561	
Property and equipment, net	1,615	1,358	
Other assets	1,749	1,546	
Total assets	$ 16,988	$ 95,465	
Liabilities and stockholders' equity			
Current liabilities:			
Accounts payable	$ 2,484	$ 3,705	
Accrued liabilities	1,448	4,808	
Deferred grant funding, current	—	2,759	
Total current liabilities	3,932	11,272	
Lease-related liabilities, noncurrent	570	476	
Other long-term liabilities	252	255	
Total liabilities	4,754	12,003	
Commitments and contingencies (Note 5)			
Stockholders' equity:			
Convertible preferred stock, $0.0001 par value; 71,031,997 and 125,673,575 shares authorized as of December 31, 2016 and 2017; 34,400,000 and 125,673,575 shares issued and outstanding as of December 31, 2016 and 2017, actual; aggregate liquidation preference of $149,800,000 as of December 31, 2017, actual; no shares issued and outstanding as of December 31, 2017, pro forma (unaudited)	34,245	149,397	$
Common stock, $0.0001 par value: 153,123,239 and 200,000,000 shares authorized as of December 31, 2016 and 2017; 51,486,242 and 52,321,593 shares issued and outstanding at December 31, 2016 and 2017, actual; shares issued and outstanding at December 31, 2017, pro forma (unaudited)	5	5	
Additional paid-in capital	2,485	3,503	
Accumulated other comprehensive loss	—	(44)	
Accumulated deficit	(24,501)	(69,399)	
Total stockholders' equity	12,234	83,462	$
Total liabilities and stockholders' equity	$ 16,988	$ 95,465	

The accompanying notes are an integral part of these financial statements.

FORTY SEVEN, INC.

Statements of Operations and Comprehensive Loss
(In thousands, except share and per share data)

	Year Ended December 31,	
	2016	2017
Operating expenses:		
Research and development	$ 14,464	$ 37,174
General and administrative	5,153	8,130
Total operating expenses	19,617	45,304
Loss from operations	(19,617)	(45,304)
Interest and other income, net	78	406
Net loss	(19,539)	(44,898)
Unrealized loss on available-for-sale securities	—	(44)
Comprehensive loss	$ (19,539)	$ (44,942)
Net loss per share, basic and diluted	$ (0.41)	$ (0.90)
Shares used in computing net loss per share, basic and diluted	48,028,336	50,131,995
Pro forma net loss per share, basic and diluted (unaudited)		$
Shares used in computing pro forma net loss per share, basic and diluted (unaudited)		

The accompanying notes are an integral part of these financial statements.

FORTY SEVEN, INC.

Statements of Stockholders' Equity
(In thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance — December 31, 2015	29,800,000	$ 29,655	42,060,000	$ 4	$ 2,036	$ —	$ (4,962)	$ 26,733
Issuance of Series A-1 convertible preferred shares at $1.00 per share, net of issuance costs of $10	4,600,000	4,590	—	—	—	—	—	4,590
Issuance of common stock related to Stanford license agreement	—	—	7,751,242	1	(1)	—	—	—
Issuance of common stock for exercise of stock options	—	—	1,675,000	—	203	—	—	203
Vesting of restricted common stock	—	—	—	—	2	—	—	2
Stock-based compensation	—	—	—	—	245	—	—	245
Net loss and comprehensive loss	—	—	—	—	—	—	(19,539)	(19,539)
Balance — December 31, 2016	34,400,000	34,245	51,486,242	5	2,485	—	(24,501)	12,234
Issuance of Series A-2 convertible preferred shares at $1.2448 per share, net of issuance costs of $23	32,454,663	40,377	—	—	—	—	—	40,377
Issuance of Series B convertible preferred shares at $1.2751 per share, net of issuance costs of $225	58,818,912	74,775	—	—	—	—	—	74,775
Issuance of common stock for exercise of stock options	—	—	835,351	—	155	—	—	155
Vesting of restricted common stock	—	—	—	—	2	—	—	2
Vesting of early exercised stock options	—	—	—	—	137	—	—	137
Stock-based compensation	—	—	—	—	724	—	—	724
Net loss	—	—	—	—	—	—	(44,898)	(44,898)
Other comprehensive loss	—	—	—	—	—	(44)	—	(44)
Balance — December 31, 2017	125,673,575	$149,397	52,321,593	$ 5	$ 3,503	$ (44)	$ (69,399)	$ 83,462

The accompanying notes are an integral part of these financial statements.

FORTY SEVEN, INC.

Statements of Cash Flows
(In thousands)

	Year Ended December 31, 2016	2017
Cash flows from operating activities:		
Net loss	$ (19,539)	$ (44,898)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	245	724
Depreciation and amortization	134	371
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(3,881)	(568)
Other assets	(1,691)	205
Accounts payable	1,995	1,221
Accrued liabilities	853	3,356
Deferred grant funding	—	2,759
Lease-related liabilities	53	(90)
Other long-term liabilities	16	(17)
Net cash used in operating activities	(21,815)	(36,937)
Cash flows from investing activities:		
Purchases of property and equipment	(1,103)	(114)
Purchases of available-for-sale securities	(4,000)	(79,738)
Proceeds from maturities of available-for-sale securities	4,000	16,000
Net cash used in investing activities	(1,103)	(63,852)
Cash flows from financing activities:		
Proceeds from issuance of convertible preferred stock, net of issuance costs	4,590	115,152
Proceeds from issuance of common stock upon exercise of stock options	436	312
Net cash provided by financing activities	5,026	115,464
Net (decrease) increase in cash and cash equivalents	(17,892)	14,675
Cash and cash equivalents — beginning of year	27,634	9,742
Cash and cash equivalents — end of year	$ 9,742	$ 24,417
Supplemental disclosures of cash flow information:		
Purchases of property and equipment through accounts payable and accrued liabilities	$ —	$ 10

The accompanying notes are an integral part of these financial statements.

FORTY SEVEN, INC.

Notes to the Financial Statements

1. Basis of Presentation

The Company is a clinical-stage immuno-oncology company focused on developing novel checkpoint therapies to activate macrophages in the fight against cancer. Forty Seven was founded based on the insight that blocking CD47, a key signaling molecule that is over-expressed on cancer cells, renders tumors susceptible to macrophages and the innate immune system. By harnessing macrophages, the Company believes that its lead product candidate, 5F9, dosed as a monotherapy and in combination with marketed cancer therapies, can transform the treatment of cancer. 5F9 has demonstrated promising antitumor activity in five Phase 1b/2 clinical trials in which we treated over 140 relapsed or refractory cancer patients with solid or hematologic tumors. The Company holds worldwide economic rights to all of its product candidates.

Liquidity

In the course of its development activities, the Company has sustained operating losses and expects to continue to generate operating losses for the foreseeable future. The Company's ultimate success depends on the outcome of its research and development activities. The Company had cash, cash equivalents and short-term investments of $88.1 million as of December 31, 2017. Since inception through December 31, 2017, the Company has incurred cumulative net losses of $69.4 million. Management expects to incur additional losses in the future to conduct product research and development and recognizes the need to raise additional capital to fully implement its business plan.

The Company intends to raise such capital through the issuance of additional equity financing and/or third-party collaboration funding. However, if such financing is not available at adequate levels, the Company will need to reevaluate its operating plan and may be required to delay the development of its products. Management considers that there are no conditions or events, in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern for a period of at least one year from the date the financial statements are issued. The Company expects that its cash, cash equivalents and short-term investments as of December 31, 2017 will be sufficient to fund operating expenses and capital expenditure requirements through the second quarter in 2019.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. Significant estimates and assumptions made in the accompanying financial statements include but are not limited to the fair value of common stock, the fair value of stock options, income tax uncertainties and certain accruals. The Company evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could differ from those estimates.

Unaudited Pro Forma Financial Information

Immediately upon the closing of this offering, all outstanding shares of convertible preferred stock will convert into common stock. Unaudited pro forma balance sheet information as of December 31, 2017 assumes

FORTY SEVEN, INC.

Notes to the Financial Statements

the conversion of all outstanding convertible preferred stock into shares of common stock. The shares of common stock issuable and the proceeds expected to be received in the initial public offering are excluded from such pro forma financial information.

Pro forma basic and diluted net loss per share has been computed to give effect to the conversion of all outstanding convertible preferred stock into shares of common stock. The unaudited pro forma net loss per share does not include the shares expected to be sold and related proceeds to be received from the initial public offering. The unaudited pro forma net loss per share for the year ended December 31, 2017 was computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of convertible preferred stock into shares of common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates if later.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less from the purchase date to be cash equivalents. Cash equivalents consist primarily of amounts invested in money market accounts.

Investments

Investments have been classified as available-for-sale and are carried at estimated fair value as determined based upon quoted market prices or pricing models for similar securities. Management determines the appropriate classification of its investments in debt securities at the time of purchase. Investments with original maturities beyond three months at the date of purchase and which mature at, or less than twelve months from the balance sheet date are classified as current.

Unrealized gains and losses are excluded from earnings and are reported as a component of comprehensive loss. The Company periodically evaluates whether declines in fair values of its marketable securities below their book value are other-than-temporary. This evaluation consists of several qualitative and quantitative factors regarding the severity and duration of the unrealized loss as well as the Company's ability and intent to hold the marketable security until a forecasted recovery occurs. Additionally, the Company assesses whether it has plans to sell the security or it is more likely than not it will be required to sell any marketable securities before recovery of its amortized cost basis. Realized gains and losses and declines in fair value judged to be other than temporary, if any, on marketable securities are included in interest and other income, net. The cost of investments sold is based on the specific-identification method. There were no realized gains or losses on investments for the years ended December 31, 2016 and 2017. Interest on marketable securities is included in interest income.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to concentrations of risk consist of cash, cash equivalents and short-term investments. The Company's cash, cash equivalents and short-term investments are held by one financial institution in the United States, which management believes to be of high credit quality. Deposits in this financial institution may at times exceed federally insured limits. The Company has not experienced any losses on its deposits of cash, cash equivalents, or short-term investments.

Fair Value Measurement

Assets and liabilities recorded at fair value on a recurring basis in the balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Fair value is defined as

the exchange price that would be received for an asset or an exit price that would be paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The authoritative guidance on fair value measurements establishes a three-tier fair value hierarchy for disclosure of fair value measurements as follows:

Level 1—Observable inputs such as unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date;

Level 2—Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active;

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets, generally three to five years. Leasehold improvements are amortized using the straight-line method over the shorter of the assets' estimated useful lives or the remaining term of the lease. Maintenance and repairs are charged to operations as incurred. Upon sale or retirement of assets, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operations.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for indications of possible impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparison of the carrying amounts to the future undiscounted cash flows attributable to these assets. An impairment loss is recognized to the extent an asset group is not recoverable, and the carrying amount exceeds the projected discounted future cash flows arising from these assets. There were no impairments of long-lived assets for any of the periods presented.

Research and Development Expenditures

Research and development expenses consist of costs incurred for the Company's own and for sponsored and collaborative research and development activities. Research and development costs are expensed as incurred. Research and development costs consist of salaries and benefits, including associated stock-based compensation, and laboratory supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities on the Company's behalf. The Company estimates preclinical study and clinical trial expenses based on the services performed pursuant to contracts with research institutions and contract research organizations, or CROs, and clinical manufacturing organizations, or CMOs, that conduct and manage preclinical studies and clinical trials on the Company's behalf based on actual time and expenses incurred by them. Further, the Company accrues expenses related to clinical trials based on the level of patient activity according to the related agreement. The Company monitors patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. If the Company does not identify costs that have begun to be incurred or if the Company underestimates or overestimates the level of services performed or the costs of these services, actual expenses could differ from the Company's estimates. To date, the Company has not experienced significant changes in its estimates of preclinical studies and clinical trial accruals.

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Notes to the Financial Statements

The Company expenses payments for the acquisition and development of technology as research and development costs if, at the time of payment, the technology is under development; is not approved by the U.S. Food and Drug Administration or other regulatory agencies for marketing; has not reached technical feasibility; or otherwise has no foreseeable alternative future use. In addition, funding from research grants is offset against the related qualified research and development costs incurred.

Stock-Based Compensation

The Company measures its stock-based awards granted to employees and directors based on the estimated fair values of the awards and recognizes the compensation over the requisite service period. The Company uses the Black-Scholes option-pricing model to estimate the fair value of its stock-based awards. Stock-based compensation is recognized using the straight-line method.

Defined Contribution Plan

The Company has a defined contribution retirement savings plan under Section 401(k) of the Internal Revenue Code ("IRC"). This plan allows eligible employees to defer a portion of their annual compensation on a pre-tax or after-tax basis. The Company may make discretionary matching contributions. During 2016 and 2017, the Company made matching contributions on up to 3% of an employee's eligible compensation deferred. The Company recognized expense related to its contributions to the plan of $107,000 and $211,000 for the years ended December 31, 2016 and 2017.

Income Taxes

Income taxes are accounted for under the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Management makes an assessment of the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. Due to the Company's historical operating performance and the recorded cumulative net losses in prior fiscal periods, the net deferred tax assets have been fully offset by a valuation allowance.

The Company recognizes uncertain income tax positions at the largest amount that is more likely than not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Changes in recognition or measurement are reflected in the period in which judgment occurs. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of provision for income taxes.

Comprehensive Loss

The Company's comprehensive loss is currently comprised of changes in unrealized losses on available-for-sale securities.

Net Loss per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period, without consideration for potential dilutive shares of common stock. The weighted-average number of shares of common stock outstanding for 2016 includes 7,751,242 shares of

common stock issuable under the Stanford license agreement (see Note 6) as if the shares were outstanding for the full period, as all the conditions for issuance had been satisfied in 2015. Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share since the effects of potentially dilutive securities are antidilutive. Shares of common stock subject to repurchase are excluded from the weighted-average shares.

Segment Reporting

The Company has one operating segment. The Company's chief operating decision maker, its Chief Executive Officer, manages the Company's operations on a consolidated basis for the purposes of allocating resources.

Recently Issued and Adopted Accounting Pronouncements

In March 2016, the FASB issued Accounting Standards Update No. 2016-09, *Stock Compensation—Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). ASU 2016-09 was issued to simplify accounting guidance by identifying, evaluating, and improving areas for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The areas affected by ASU 2016-09 include accounting for income taxes, classification of excess tax benefits on the statement of cash flows, minimum statutory tax withholding requirements, and classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax-withholding purposes. In addition, under this guidance, an entity can make an accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. Upon adoption of this guidance beginning with the year ended December 31, 2017, the Company changed its policy to account for forfeitures as they occur. The adoption of this guidance during the year ended December 31, 2017 did not have a material impact on the Company's financial statements.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases* (ASU 2016-02) provides accounting guidance for both lessee and lessor accounting models. The principle of ASU 2016-02 is that a lessee should recognize the assets and liabilities that arise from leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability. For income statement purposes, ASU 2016-02 requires leases to be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. ASU 2016-02 is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted. The new standard must be adopted using a modified-retrospective transition and provides for certain practical expedients. The Company is currently evaluating the effects of the adoption of this ASU on its financial statements.

3. Fair Value Measurements

The Company measures and reports its cash equivalents and short-term investments at fair value.

Money market funds are measured at fair value on a recurring basis using quoted prices and are classified as a Level 1 input. Short-term investments are measured at fair value based on inputs other than quoted prices that

are derived from observable market data and are classified as Level 2 inputs. There were no transfers between Levels 1, 2 or 3 for any of the periods presented. All of the investments held as of December 31, 2017 had maturities of less than one year.

As of December 31, 2016, the Company held $8.6 million in money market funds (Level 1) with no unrealized gains or losses. The fair value and amortized cost of cash equivalents and available-for-sale securities by major security type as of December 31, 2017 are presented in the following table:

		As of December 31, 2017			
	Fair Value Hierarchy	Amortized Cost	Unrealized Gains	Unrealized Losses	Market Value
			(In thousands)		
Money market funds	Level 1	$ 19,052	$ —	$ —	$19,052
Commercial paper	Level 2	31,467	—	—	31,467
Corporate debt securities	Level 2	24,556	—	(35)	24,521
Asset-backed securities	Level 2	7,717	—	(7)	7,710
US government debt securities	Level 2	1,993	—	(2)	1,991
Total cash equivalents and available-for-sale securities		$ 84,785	$ —	$ (44)	$84,741

4. Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consists of the following:

	As of December 31,	
	2016	2017
	(In thousands)	
Furniture and fixtures	$ 14	$ 14
Laboratory equipment	874	988
Computer equipment and software	91	91
Leasehold improvements	770	770
	1,749	1,863
Less: Accumulated depreciation and amortization	(134)	(505)
Total property and equipment, net	$1,615	$1,358

Depreciation and amortization expense for property and equipment amounted to $134,000 and $371,000 for the years ended December 31, 2016 and 2017.

FORTY SEVEN, INC.

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Accrued Liabilities

Accrued liabilities consist of the following:

	As of December 31,	
	2016	2017
	(In thousands)	
Accrued research and development expenses	$1,239	$4,096
Lease-related liabilities, current	129	133
Other	80	579
Total accrued liabilities	$1,448	$4,808

5. Commitments and Contingencies

Lease

In August 2016, the Company entered into an operating lease agreement for its headquarters in Menlo Park, California. The lease term is for 60 months. The lease rental payments are on a graduated scale; however, rent expense is recognized on a straight-line basis over the lease term. The landlord provided the Company with a tenant improvement allowance of up to $646,000. The allowance is amortized as an offset to rent expense over the lease term. Rent expense for the years ended December 31, 2016 and 2017 was $587,000 and $993,000. At December 31, 2016 and 2017, $97,000 and $135,000 was accrued as deferred rent expense.

Effective September 2016, the Company entered into a sublease agreement to lease of portion of the Menlo Park facility to a tenant. Sublease income was $62,000 and $124,000 for the years ended December 31, 2016 and 2017 and was recorded as an offset to rent expense. In conjunction with the lease agreement, the Company paid a security deposit of $353,000 included in prepaid expenses and other current assets and other assets as of December 31, 2016. The security deposit was reduced to $265,000, included in prepaid expenses and other current assets and other assets as of December 31, 2017.

At December 31, 2017, future minimum payments are as follows (in thousands):

2018	$1,101
2019	1,134
2020	1,168
2021	794
Total future minimum lease payments	$4,197

Manufacturing Commitment

In August 2016, the Company entered into a development and manufacturing agreement with Lonza Sales AG and, in December 2017, the Company entered into a second manufacturing agreement with Lonza Biologics Tuas Pte Ltd, each relating to the manufacturing of 5F9-related products.

The August 2016 agreement was amended by the Company in November 2017 to provide for the manufacturing of the Company’s other preclinical program related products. Under the agreements, the Company is required to pay Lonza fixed fees based on manufacturing services performed on the Company’s behalf.

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Payments are due beginning in January 2018 through the expiration of the agreements in December 2021. The fees payable under the August 2016 agreement and as amended in November 2017, are specified in British Pounds and are converted into U.S. Dollars based on the exchange rate as of December 31, 2017.

At December 31, 2017, future minimum payments under the Lonza development and manufacturing agreements are as follows, with potential payments totaling $13.1 million in 2021, subject to the Company's right to discontinue manufacturing services (in thousands):

2018	$ 9,688
2019	14,411
2020	13,088
Total future minimum payments	$37,187

6. Research and License Agreements

Stanford License Agreement

In November 2015, the Company entered into a technology license agreement with The Board of Trustees of the Leland Stanford Junior University, or Stanford, under which Stanford granted to the Company exclusive licenses under certain patents and other intellectual property rights relating to the Company's current product candidates and non-exclusive licenses under certain other patents and intellectual property rights to develop, manufacture and commercialize products for use in certain licensed fields, including oncology. With respect to these licenses, the Company could be required to pay Stanford up to $5.6 million in milestone payments based on the achievement of certain development and regulatory approval milestones. The first such milestone payment of $75,000 was paid to Stanford in February 2018. In addition, the Company is required to pay Stanford a minimum annual fee and a royalty of single digit percentage on net sales of licensed products, reimburse patent-related expenses, share any non-royalty sublicensing income received related to the licensed technology, and pay a change of control fee.

California Institute of Regenerative Medicine (CIRM) Grants

In January 2017, the Company was awarded a research grant from CIRM supporting our CRC trial. The CIRM grant stipulates various milestone-based payments to the Company with the total award of $10.2 million over a period of four years. As of December 31, 2017, the Company had received $3.8 million under the award.

In November 2017, the Company was awarded a second research grant from CIRM for a separate clinical trial study in AML. The total amount of the research grant awarded was $5.0 million in various milestone-based payments over a period of five years. As of December 31, 2017, the Company had received $1.1 million under the award. Under the terms of the CIRM grants, the Company is obligated to pay royalties and licensing fees based on a low single digit royalty percentage on net sales of CIRM-funded product candidates or CIRM-funded technology. The Company has the option to decline any and all amounts awarded by CIRM. As an alternative to revenue sharing, the Company has the option to convert the award to a loan. No such election has been made as of the date of the issuance of these financial statements. In the event that the Company terminates a CIRM-funded clinical trial, it will be obligated to repay the remaining CIRM funds on hand.

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Notes to the Financial Statements

Leukemia & Lymphoma Society Grant

In March 2017, the Company entered into an agreement with the Leukemia & Lymphoma Society, Inc. ("LLS") regarding our NHL rituximab combination trial. The LLS research grant stipulates various milestone-based payments with a total award of $4.0 million through December 2019. As of December 31, 2017, the Company had received $1.0 million under the award. The Company could be required in the future to pay amounts to LLS upon reaching certain development and regulatory approval milestones as well as a low single digit percentage royalty rate on net sales, up to a maximum of $15 million in total.

The Company recognizes research grants as a reduction of research and development expense when the eligible costs are incurred.

7. Convertible Preferred Stock

Convertible preferred stock consists of the following:

	As of December 31, 2016			
	Shares Authorized	Shares Issued and Outstanding	Net Carrying Value	Aggregate Liquidation Preference
	(In thousands, except share data)			
Series A-1	34,400,000	34,400,000	$ 34,245	$ 34,400
Series A-2	36,631,997	—	—	—
	71,031,997	34,400,000	$ 34,245	$ 34,400

	As of December 31, 2017			
	Shares Authorized	Shares Issued and Outstanding	Net Carrying Value	Aggregate Liquidation Preference
	(In thousands, except share data)			
Series A-1	34,400,000	34,400,000	$ 34,245	$ 34,400
Series A-2	32,454,663	32,454,663	40,377	40,400
Series B	58,818,912	58,818,912	74,775	75,000
	125,673,575	125,673,575	$ 149,397	$ 149,800

The holders of the Company's convertible preferred stock have various rights, preferences, and privileges as follows:

Optional Conversion Rights

Each share of convertible preferred stock shall be convertible, at the option of the holder, into such number of fully paid shares of common stock as is determined by dividing the Original Issue Price by the Conversion Price in effect at the time of conversion. As of December 31, 2016 and 2017, the initial conversion price per share of convertible preferred stock is equivalent to the original issue price. The original issuance price was $1.00 per share for the Series A-1 convertible preferred stock, $1.2448 per share for the Series A-2 convertible preferred stock, and $1.2751 per share for the Series B convertible preferred stock.

The respective applicable conversion price is subject to adjustment upon any future stock splits or stock combinations, reclassifications or exchanges of similar stock, upon a reorganization, merger or consolidation of the Company, upon the issuance or sale by the Company of common stock for consideration less than the applicable conversion price.

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Notes to the Financial Statements

Mandatory Conversion Rights

Each share of Series A-1 and A-2 convertible preferred stock automatically converts into the number of shares of common stock determined in accordance with the conversion rate upon the earlier of (a) written consent of 66 ⅔ of the then outstanding shares of Series A-1 and A-2 convertible preferred stock, voting together as a single class or (b) the closing of a public offering in which the gross cash proceeds are at least $50.0 million. Each share of Series B convertible preferred stock automatically converts into the number of shares of common stock determined in accordance with the conversion rate upon the earlier of (a) written consent of 75% of the then outstanding shares of Series B convertible preferred stock or (b) the closing of a public offering in which the gross cash proceeds are at least $50.0 million.

Dividends

The holders of the outstanding shares of convertible preferred stock are entitled to receive, when and if declared by the Board of Directors, a noncumulative cash dividend at the rate of 8% of the applicable original issue price per annum on each outstanding share of convertible preferred stock. Such dividends are payable in preference to any dividends for common stock declared by the Board of Directors. In the case of a dividend on common stock, the dividend per share of convertible preferred stock would also include the dividend payable on each share determined, if applicable, as if all convertible preferred stock had been converted to common stock. No dividends had been declared as of December 31, 2017.

Liquidation

In the event of any liquidation, dissolution, or winding up of the Company, either voluntary or involuntary, the holders of convertible preferred stock shall be entitled to receive pro rata, prior and in preference to any distribution to the holders of the common stock, an amount equal to the original issuance prices of each series (in each case, as adjusted for stock splits, stock dividends or distributions, recapitalizations, and similar events) and all declared but unpaid dividends, if any. If the assets and funds to be distributed among the holders of convertible preferred stock are insufficient to permit the payment to such holders, then the entire assets and funds of the Company legally available for distribution will be distributed ratably among the holders of convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

Upon the payment of the full liquidation preference of convertible preferred stock, the remaining assets of the Company, if any, shall be distributed ratably to the holders of common stock.

Voting Rights

Each share of convertible preferred stock has a number of votes equal to the number of shares of common stock into which it is convertible.

The holders of convertible preferred stock, voting together as a single class, shall be entitled to elect three members of the Company's Board of Directors. The holders of Series B convertible preferred stock have the right to elect one member of the Company's Board of Directors. The holders of common stock have the right to elect three members of the Company's Board of Directors. The holders of common stock and convertible preferred stock, voting together as a single class on an as-converted basis, are entitled to elect one member of the Board of Directors.

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8. Stock-Based Compensation

In November 2015, the Company adopted the 2015 Equity Incentive Plan ("2015 Plan"). The 2015 Plan provides for the Company to sell or issue common stock or restricted common stock, or to grant incentive stock options or nonqualified stock options for the purchase of common stock, to employees, members of the Board of Directors and consultants of the Company under terms and provisions established by the Board of Directors. Under the terms of the Plan, options may be granted at an exercise price not less than fair market value. The Company generally grants stock-based awards with service conditions only. Options granted typically vest over a four-year period but may be granted with different vesting terms.

As of December 31, 2016 and 2017, there were 17,640,000 shares and 23,579,943 shares reserved by the Company to grant under the 2015 Plan.

The following summarizes option activity under the 2015 Plan:

	Shares Issuable Under Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contract Term (In years)	Aggregate Intrinsic Value (In thousands)
Balance, December 31, 2015	—	$ —		
Options granted	6,532,500	0.26		
Options exercised	(1,675,000)	0.26		
Options forfeited	(20,000)	0.26		
Balance, December 31, 2016	4,837,500	0.26	9.35	$ 1,790
Options granted	13,609,763	0.66		
Options exercised	(835,351)	0.37		
Options forfeited	(1,316,918)	0.35		
Balance Outstanding December 31, 2017	16,294,994	0.58	9.43	1,672
Exercisable, December 31, 2017	8,252,706	0.54	9.33	1,130
Vested and expected to vest, December 31, 2017	16,294,994	0.58	9.43	1,672

The aggregate intrinsic values of options outstanding, exercisable, vested and expected to vest were calculated as the difference between the exercise price of the options and the estimated fair value of the Company's common stock, as determined by the Board of Directors, as of December 31, 2017. The intrinsic value of options exercised for the years ended December 31, 2016 and 2017 was $0 and $226,000, respectively.

During the years ended December 31, 2016 and 2017, the estimated weighted-average grant-date fair value of the options vested was $0.17 and $0.20 per share and the estimated weighted-average grant-date fair value of employee options granted was $0.17 and $0.44 per share, respectively. As of December 31, 2017, there was $5.8 million of unrecognized stock-based compensation related to unvested stock options that is expected to be recognized over a weighted-average period of 3.5 years.

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The fair value of employee and director stock option awards was estimated at the date of grant using a Black-Scholes option-pricing model with the following assumptions:

	Year Ended December 31,	
	2016	2017
Expected term (years)	6.0	6.0
Expected volatility	75%	75.5%
Weighted average risk-free interest rate	1.25% – 2.08%	1.77% – 2.21%
Dividend yield	0%	0%

The fair value of the shares of common stock underlying stock options has historically been determined by the Company's Board of Directors. Because there has been no public market for the Company's common stock, the Board of Directors has determined fair value of the common stock at the time of grant of the option by considering a number of objective and subjective factors including important developments in the Company's operations, valuations performed by an independent third party, sales of convertible preferred stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, and the lack of liquidity of the Company's common stock, among other factors.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions which determine the fair value of stock-based awards. These assumptions include:

Expected term—The expected term represents the period that stock-based awards are expected to be outstanding. The expected term for option grants is determined using the simplified method. The simplified method deems the term to be the average of the time-to-vesting and the contractual life of the stock-based awards.

Expected volatility—Since the Company is privately held and does not have any trading history for its common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded biotechnology companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle or area of specialty.

Risk-free interest rate—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of option.

Expected dividend—The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

Total stock-based compensation was as follows:

	Year Ended December 31,	
	2016	2017
	(In thousands)	
Research and development	$ 93	$ 206
General and administrative	152	518
Total	$ 245	$ 724

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Restricted Stock

The Company typically allows its employees and directors to exercise options granted under the 2015 Plan prior to vesting. The Company has also issued restricted stock awards to employees and directors under the 2015 Plan. The shares related to early exercised stock options and restricted stock awards are subject to the Company's lapsing repurchase right upon termination of employment at the original purchase price. In order to vest, the holders are required to provide continued service to the Company. The proceeds are initially recorded in other long-term liabilities and are reclassified to common stock and paid-in capital as the repurchase right lapses. As of December 31, 2016 and 2017, there was $236,000 and $255,000 recorded in other long-term liabilities related to shares held by employees and directors that were subject to repurchase.

A summary of restricted stock activity follows:

	Number of Restricted Shares Outstanding
Unvested shares—As of December 31, 2015	2,500,000
Early exercised options	1,675,000
Restricted shares vested	(1,855,208)
Unvested shares—As of December 31, 2016	2,319,792
Early exercised options	250,000
Restricted shares vested	(1,353,125)
Unvested shares—As of December 31, 2017	1,216,667

9. Income Taxes

The provision for income taxes for the years ended December 31, 2016 and 2017 was an immaterial amount. The Company has incurred net operating losses for all the periods presented. The Company has not reflected any benefit of such net operating loss carryforwards in the accompanying financial statements. The Company has established a full valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets.

A reconciliation of total provision for income taxes and the amount computed by applying the federal statutory income tax rate of 21% to loss before provision from income taxes is as follows:

	Year Ended December 31,	
	2016	2017
	(In thousands)	
Computed expected tax benefit	$ (6,540)	$ (9,428)
State taxes (net of federal tax benefits)	(1,111)	(3,119)
Increase in valuation allowance	7,685	10,185
Other	89	(65)
R&D tax credits	(123)	(326)
Federal rate change (pursuant to the Tax Act)	—	2,753
Total provision for income taxes	$ —	$ —

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The components of the deferred tax assets and liabilities are as follows:

	As of December 31,	
	2016	2017
	(In thousands)	
Net operating loss carryforwards	$ 2,811	$ 4,309
Capitalized R&D	5,295	13,537
Stock-based compensation	—	122
Fixed assets and intangibles	1,231	896
Tax credits	146	637
Other	13	180
Total deferred tax assets	9,496	19,681
Less: valuation allowance	(9,496)	(19,681)
Net deferred tax assets	$ —	$ —

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Due to the lack of earnings history, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by approximately $7.7 million and $10.2 million during the years ended December 31, 2016 and 2017.

The Company has net operating carryforwards for federal and California income tax purposes of approximately $15.3 million and $15.6 million, respectively, as of December 31, 2017. The federal net operating loss carryforwards, if not utilized, will expire beginning in 2035. The state net operating loss carryforwards, if not utilized, will expire beginning in 2035. Under the U.S. Tax Cuts & Jobs Act, passed into law in December 2017, effective January 1, 2018 (the “Tax Act”) net operating losses generated after December 31, 2017 will be carried forward indefinitely with the yearly net operating loss utilization limited to 80 percent of taxable income.

Federal and California tax laws impose significant restrictions on the utilization of net operating loss carryforwards in the event of a change in ownership of the Company, as defined by Internal Revenue Code Section 382 (“Section 382”). The Company does not believe a change in ownership, as defined by Section 382, has occurred but a formal study has not been completed. In addition, in the future the Company may experience ownership changes, which may limit the utilization of net operating loss carryforwards or other tax attributes.

Uncertain Tax Benefits

No liability related to uncertain tax positions is recorded on the financial statements related to uncertain tax positions. It is the Company’s policy to include penalties and interest expense related to income taxes as a component of interest and other income, net, as necessary.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	As of December 31,	
	2016	2017
	(In thousands)	
Balance at beginning of year	$ —	$ 93
Increases related to current year tax positions	93	189
Balance at end of year	$ 93	$ 282

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The Company does not anticipate any significant changes to unrecognized tax benefits over the next 12 months.

Income tax returns are filed in the United States and California. The years 2015 through 2017 remain open to examination by the domestic taxing jurisdictions to which the Company is subject. Net operating losses generated on a tax return basis by the Company for 2015 through 2017 remain open to examination by the domestic taxing jurisdictions.

In December 2017, the Tax Act was signed into law. The Tax Act, among other changes, lowers the Company's federal tax rate from 34% to 21%. Based on provisions of the Tax Act, the Company remeasured its deferred tax assets and liabilities to reflect the lower statutory tax rate. However, since the Company established a valuation allowance to offset its deferred tax assets, there is no impact to the effective tax rate, as any changes to deferred taxes would be offset by the valuation allowance. The deferred tax remeasurement is provisional and is subject to revision as the Company completes its analysis of the Tax Act, collects and prepares necessary data and interprets any additional guidance issued by standard-setting bodies. The Company currently anticipates finalizing and recording any resulting adjustments related to the tax effects of the Tax Act in 2018.

10. Net Loss and Unaudited Pro Forma Net Loss Per Share

The following outstanding potentially dilutive shares have been excluded from the calculation of diluted net loss per share for the periods presented due to their anti-dilutive effect:

	As of December 31,	
	2016	2017
Convertible preferred stock	34,400,000	125,673,575
Stock options to purchase common stock	4,837,500	16,294,994
Restricted stock subject to future vesting	2,319,792	1,216,667
Total	41,557,292	143,185,236

Pro forma Net Loss per Share

The following table sets forth the computation of unaudited pro forma basic and diluted net loss per share during the year ended December 31, 2017 (in thousands, except share and per share data):

	Year Ended December 31, 2017 (unaudited)
Net loss, basic and diluted	$
Shares used in computing net loss per share, basic and diluted	
Pro forma adjustment to reflect assumed conversion of convertible preferred stock	
Shares used in computing pro forma net loss per share, basic and diluted	
Pro forma net loss per share, basic and diluted	$

FORTY SEVEN, INC.

Notes to the Financial Statements

11. Related-Party Relationship

Dr. Weissman and Dr. Majeti, co-founders and members of the Company's board of directors, are professors at Stanford. While employed by Stanford, Dr. Weissman was a co-inventor of some of the patents that the Company licenses under the Stanford License Agreement. Under Stanford's policies, as a co-inventor Dr. Weissman is entitled to receive a share of any royalties that the Company pays to Stanford under the agreement with respect to the covered intellectual property. No royalty payments have been made to date.

12. Subsequent Events

Subsequent events have been evaluated through March 22, 2018, which is the date that the financial statements were available to be issued.


Forty Seven

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the SEC registration fee, the Financial Industry Regulatory Authority, or FINRA, filing fee and the Nasdaq Global Market initial listing fee.

Item	Amount
SEC registration fee	$ *
FINRA filing fee	*
Initial listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act. Our amended and restated certificate of incorporation to be in effect upon the closing of this offering allows for our indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws to be in effect upon the closing of this offering provide for indemnification of our directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and officers, whereby we have agreed to indemnify our directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee, or agent of Forty Seven, Inc., provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of Forty Seven, Inc.

At present, there is no pending litigation or proceeding involving a director or officer of Forty Seven, Inc. regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Securities Exchange Act of 1934, as amended, that might be incurred by any director or officer in his or her capacity as such.

The underwriters are obligated, under certain circumstances, pursuant to the underwriting agreement to be filed as Exhibit 1.1 hereto, to indemnify us, our officers and our directors against liabilities under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

The following sets forth information regarding all unregistered securities sold since March 1, 2015:

Issuances of Capital Stock

(1) From May 2015 to June 2015, we sold, in a series of closings, an aggregate of 39,060,000 shares of common stock to nine accredited investors at a purchase prices ranging from of $0.001 to $0.0064 per share for an aggregate purchase price of approximately $43,278.

(2) In November 2015 and from February 2016 through April 2016, we sold, in a series of closings, an aggregate of 34,400,000 shares of our Series A-1 preferred stock to 37 accredited investors at a purchase price of $1.00 per share for an aggregate purchase price of $34.4 million.

(3) From February 2017 through March 2017, we sold, in a series of closings, an aggregate of 32,454,663 shares of our Series A-2 preferred stock to 29 accredited investors at a purchase price of $1.2448132 per share for an aggregate purchase price of approximately $40.4 million.

(4) In October 2017, we sold an aggregate of 58,818,912 shares of our Series B preferred stock to 32 accredited investors at a purchase price of $1.2751 per share for an aggregate purchase price of approximately $75.0 million.

Convertible Promissory Notes

(5) From June 2015 through November 2015, we issued and sold, in a series of closings, convertible promissory notes in the aggregate principal amount of $900,000 to three accredited investors, such notes were converted into 909,349 shares of Series A-1 preferred stock in November 2015.

Option and Common Stock Issuances

(6) From May 15, 2015 through March 16, 2018, we granted to certain of our directors, employees, consultants and other service providers options to purchase 20,703,032 shares of common stock with per share exercise prices ranging from $0.26 to $0.68 under our 2015 Plan.

(7) From May 15, 2015 through March 16, 2018, we issued and sold an aggregate of 2,510,351 shares of common stock upon the exercise of options under of 2015 Plan at exercise prices ranging from $0.26 to $0.68 per share, for an aggregate exercise price of approximately $747,904.

(8) From May 15, 2015 through March 16, 2018, we issued to certain of our directors, employees, consultants and other service providers an aggregate of 3,000,000 shares of common stock at a purchase price of $0.001 per share, or $0.0064 per share, for an aggregate purchase price of approximately $6,240 pursuant to restricted stock purchase grant notices under our 2015 Plan, of which 325,000 shares of common stock were repurchased by us at $0.001 per share for a repurchase price of $325.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. Unless otherwise specified above, we believe these transactions were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act (and Regulation D promulgated thereunder), or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or under benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed on the share certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit No.	Description
1.1*	Form of Underwriting Agreement.
3.1#	Amended and Restated Certificate of Incorporation of Forty Seven, Inc., as currently in effect.
3.2*	Form of Amended and Restated Certificate of Incorporation of Forty Seven, Inc., to be in effect upon the closing of the offering.
3.3#	Bylaws of Forty Seven, Inc., as currently in effect.
3.4*	Form of Amended and Restated Bylaws of Forty Seven, Inc., to be in effect upon the closing of the offering.
4.1*	Form of Common Stock Certificate.
5.1*	Form of Opinion of Cooley LLP.
10.1#	Amended and Restated Investor Rights Agreement, by and among Forty Seven, Inc. and the investors listed on Exhibit A thereto, dated October 17, 2017.
10.2*+	Forty Seven, Inc. 2015 Equity Incentive Plan, as amended.
10.3*+	Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise under the 2015 Equity Incentive Plan.
10.4*+	Forty Seven, Inc. 2018 Equity Incentive Plan, to be in effect when this registration statement is declared effective.
10.5*+	Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise under the 2018 Equity Incentive Plan, to be in effect when this registration statement is declared effective.
10.6*+	Forms of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under the 2018 Equity Incentive Plan, to be in effect when this registration statement is declared effective.
10.7*+	Forty Seven, Inc. 2018 Employee Stock Purchase Plan.
10.8*+	Form of Indemnification Agreement, by and between Forty Seven, Inc. and each of its directors and executive officers.
10.9+#	Offer Letter, by and between Forty Seven, Inc. and Mark McCamish, dated November 10, 2016.
10.10+#	Executive Employment Agreement, by and between Forty Seven, Inc. and Chris Takimoto, effective as of January 7, 2016.
10.11#	Lease Agreement, by and between Forty Seven, Inc. and MENLO PREHC I, LLC, dated as of April 13, 2016.
10.12**#	Exclusive (Equity) Agreement, by and between Forty Seven, Inc. and The Board of Trustees of the Leland Stanford Junior University, dated November 19, 2015, as amended by Amendment No. 1 to Exclusive (Equity) Agreement, by and between Forty Seven, Inc. and The Board of Trustees of the Leland Stanford Junior University, dated April 19, 2017.
10.13**#	Assigned Capacity and Manufacturing Agreement, by and between Forty Seven, Inc. and Lonza Sales AG, dated August 30, 2016.
10.14**#	Amendment to the Assigned Capacity and Manufacturing Agreement, by and between Forty Seven, Inc. and Lonza Sales AG, dated June 9, 2017.
10.15**	Assigned Capacity and Manufacturing Agreement for 2000 L Scale, by and between Forty Seven, Inc. and Lonza Biologics Tuas Pte Ltd, dated December 21, 2017.
10.16*+	Forty Seven, Inc. Executive Severance and Change in Control Plan.

Exhibit No.	Description
16.1#	Letter from PricewaterhouseCoopers LLP to the Securities and Exchange Commission.
23.1*	Consent of independent registered public accounting firm.
23.2*	Consent of Cooley LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (see signature pages).

* To be filed by amendment.
** Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.
\+ Indicates management contract or compensatory plan.
\# Previously submitted.

(b) Financial Statement Schedules.

All financial statement schedules are omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or the notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance on Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act will be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus will be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time will be deemed to be the initial *bona fide* offering thereof.

(3) For the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities: the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to

such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(4) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Menlo Park, California on , 2018.

FORTY SEVEN, INC.

By: _____
Name: Mark A. McCamish
Title: President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoint Mark A. McCamish and Ann D. Rhoads, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
Mark A. McCamish, M.D.	President and Chief Executive Officer and Director (*Principal Executive Officer*)	, 2018
Ann D. Rhoads	Chief Financial Officer (*Principal Financial and Accounting Officer*)	, 2018
Kristine M. Ball	Director	, 2018
Jeffrey W. Bird, M.D.	Director	, 2018
Ian T. Clark	Director	, 2018
Dennis J. Henner, Ph.D.	Director	, 2018
Ravindra Majeti, M.D.	Director	, 2018
Christopher J. Schaepe	Director	, 2018
Irving L. Weissman, M.D.	Director	, 2018

CONFIDENTIAL

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.15

Assigned Capacity and Manufacturing Agreement for 2,000 L Scale

(the “Agreement”)

by and between·

Lonza Biologics Tuas Pte Ltd
35 Tuas South Avenue 6, SG-Singapore, 637377

-hereinafter “Lonza”-

and

Forty Seven Inc.,
1490 O’Brien Drive, Suite A
Menlo Park, CA 94025 USA

-hereinafter “Forty Seven” or“Customer”-

Effective as of December 21, 2017 (the “Effective Date”)

2k Singapore

CONFIDENTIAL

Table of Contents

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

CONFIDENTIAL

Recitals

WHEREAS, Forty Seven is engaged in the development and research of certain products for the treatment of various indications (as further defined below, "Products");

WHEREAS, Lonza and its Affiliates have expertise in the evaluation, development and manufacture of such Products;

WHEREAS, Forty Seven wishes to engage Lonza for Services relating to the development and manufacture of the Product as described in this Agreement; and

WHEREAS, Lonza or its Affiliate; is prepared to perform such Services for Forty Seven in accordance with the terms and subject to the conditions set out herein.

NOW, THEREFORE, in consideration of the mutual promises contained herein, and for other good and valuable consideration, the parties intending to be legally bound, agree as follows:

1 Definitions and Interpretation

"Affiliate"	means any company, partnership or other entity which directly or indirectly, Controls, is Controlled by or is under common control with the relevant Party. "Control" means the ownership of more than fifty percent (50%) of the issued share capital or the legal power to direct or cause the direction of the general management and policies of the relevant Party.
"Agreement"	means this agreement incorporating all Appendices, as amended from time to time by written agreement of the Parties.
"Alternate Product(s)"	*means any product(s) which the Parties agree may be substituted in place of or manufactured in addition to the CD47 Product in accordance with Clause 6.2, and after such substitution all references in this Agreement to "Product" shall be deemed to apply to such Alternate Product(s).*
"Applicable Laws"	means all relevant U.S., U.K. and European Union, federal, state and local laws, statutes, rules, and regulations which are applicable to a Party's activities hereunder, including, without limitation, the applicable regulations and guidelines of any Governmental Authority and cGMP together with amendments thereto.
"Approval"	means the first marketing approval by the FDA or EMA of Production from the Facility for commercial supply.

"Assigned Capacity"	means the annual capacity at the Facility assigned by Lonza to Forty Seven for the manufacture of cGMP Batches as described in clause 6.1.
"Background Intellectual Property"	means any Intellectual Property either (i) owned or controlled by a Party prior to the Effective Date or (ii) developed or acquired by a Party independently from the performance of the Services hereunder during the Term of this Agreement.
"Batch"	means the Product derived from a single run of the Manufacturing Process at the Facility at 2,000 litre scale and associated analytical testing required for the release of the Product.
"CD47 Product"	means the human IgG antibody produced by the Cell Line, known as SSCI047 that binds to CD47 and of which Forty Seven is the proprietor as set out in Appendix D.
"Cell Line"	means the GS-CHO cell line expressing Product, created by Lonza under the Prior MSA, an example of the particulars of which are set out in Appendix D, and which does not include Lonza's host cell lines.
"Certificate of Analysis"	means a document prepared by Lonza listing tests performed by Lonza or approved External Laboratories, the Specifications and test results.
"Certificate of Compliance"	means a document prepared by Lonza: (i) listing the manufacturing date, unique Batch number, and concentration of Product in such Batch, (ii) certifying that such Batch was manufactured in accordance with the Master Batch Record and cGMP.
"cGMP"	means those laws and regulations applicable in the U.S., U.K. and European Union, relating to the manufacture of medicinal products for human use, including, without limitation, current good manufacturing practices as specified in the ICH guidelines, including without limitation, ICH Q7A "ICH Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients", US Federal Food Drug and Cosmetic Act at 21CFR (Chapters 210, 211, 600 and 610) and the Guide to Good Manufacturing Practices for Medicinal Products as promulgated under European Directive 91/356/EEC. For the avoidance of doubt, Lonza's operational quality standards are defined in internal cGMP policy documents.

"cGMP Batches"	means any Batches which are required under the Project Plan to be manufactured in accordance with cGMP.
"Commencement Date"	means the date of removal of the vial of cells from frozen storage for the production of a Batch.
"Confidential Information"	means Forty Seven Information and/or Lonza Information, as the context requires.
"EMA"	means the European Medicines Agency, or any successor agency thereto.
"Engineering Batches"	means a Batch that is intended to demonstrate the transfer of the Manufacturing Process to the Facility, as described in Clause 2.2.
"External Laboratories"	means any Third Party instructed by Lonza, with Forty Seven's prior consent, which is to conduct activities required to complete the Services.
"Facility"	means Lonza's manufacturing facility in Singapore.
"FDA"	means the United States Food and Drug Administration, or any successor agency thereto.
"Forty Seven Information"	means all technical and other information (i) from time to time supplied by Forty Seven to Lonza under this Agreement which, at the time of disclosure by Forty Seven, was not known to Lonza or in the public domain or (ii) which was owned by Forty Seven pursuant to the Prior MSA and/or is specific to the Cell Line or Product, or any other materials or information supplied by Forty Seven to Lonza under this Agreement.
"Forty Seven Materials"	means any components of Product, or other materials of any nature as may be provided by Forty Seven to Lonza under this Agreement provided that the Cell Line will be subject always to the terms of the GS Licence.
"Governmental Authority"	means any Regulatory Authority and any national, multi-national, regional, state or local regulatory agency, department, bureau, or other governmental entity in the U.S., U.K. or European Union.

“GS Licence”	means the licence agreement between Forty Seven and Lonza Sales AG dated 24 May 2016 for the use of Lonza’s proprietary glutamine synthetase gene expression system, as amended from time to time.
“Intellectual Property”	means (i) inventions (whether or not patentable), patents, trade secrets, copyrights, trademarks, trade names and domain names, rights in designs, rights in computer software, database rights, rights in confidential information (including know-how) and any other intellectual property rights, in each case whether registered or unregistered, (ii) all applications (or rights to apply) for, and renewals or extensions of, any of the rights described in the foregoing sub-clause (i) and (ii) and all rights and applications that are similar or equivalent to the rights and application described in the foregoing sub-clauses (i) and (ii), which exist now, or which come to exist in the future, in any part of the world.
“Lonza Information”	means all information that is proprietary to Lonza or any Affiliate of Lonza and that is maintained in confidence by Lonza or any Affiliate of Lonza and that is disclosed by Lonza or any Affiliate of Lonza to Forty Seven under or in connection with this Agreement, including without limitation, any and all Lonza know-how and trade secrets, but excluding any Forty Seven Information.
“Manufacturing Process”	means Lonza’s production process for the manufacture of Product.
“Master Batch Record”	means the document, proposed by Lonza and approved by Forty Seven, which defines the manufacturing methods, test methods and other procedures, directions and controls associated with the manufacture and testing of Product.
“New Forty Seven Intellectual Property”	has the meaning given in Clause 10.2.
“New General Application Intellectual Property”	has the meaning given in Clause 10.3.
“Party”	means each of Lonza and Forty Seven and, together, the ”Parties”.
“Price”	means the price for the Services and Products as set out in Clause 8 and/or Appendix B.

"Prior MSA"	means the (i) sub-award agreement between Forty·Seven and Lonza Sales AG dated 25 August 2010; as novated and amended by the novation and amendment agreement .between the Parties dated 01 March 2016 and as amended from time to time, and (ii) the Assigned Capacity and Manufacturing Agreement between Forty Seven and Lonza Sales AG dated 30 August 2016 as amended.
"Process Validation Batch"	means a Batch that is produced with the intent to show reproducibility of the Manufacturing Process and Is required to complete process validation studies.
"Product(s)"	means the CD47 Product and/or the Alternate Product(s) to be manufactured by Lonza under this Agreement.
"Project Plan"	means the Plan(s) describing the Services to be performed by Lonza under this Agreement, including any update and amendment of the Project Plan to which the Parties may agree from time to time.
"Quality Agreement"	means the quality agreement, attached hereto as Appendix C, setting out the responsibilities of the Parties in relation to quality as required for compliance with cGMP.
"Raw Materials"	means all ingredients, solvents and other components of the Product required to perform the Manufacturing Process or Services set forth in the bill of materials detailing the· same [*].
"Raw Materials Fee"	means the procurement and handling fee of [*] of the amount incurred by Lonza to be paid to a Third Party ("Lonza's Cost") for the acquisition of Raw Materials (other than Resins) that is charged to Forty Seven in addition to Lonza's Cost of such Raw Materials.
"Regulatory Approval"	means, with respect to a Product, all approvals, licenses, registrations or authorizations necessary for the commercialization of such Product in a particular jurisdiction.
"Regulatory Authority"	means the FDA, EMA and any other similar regulatory authorities: as may be agreed upon in writing by the Parties.
"Release"	has the meaning given in Clause 7.1.

"Resin"	means the chromatographic media and/or UF membranes intended to refine or purify the Product, as specified in the Master Batch Record.
"Safety Stock"	has the meaning set out in Clause 2.9.
"Services"	means all or any part of the services to be performed by Lonza under this Agreement, particulars of which are set out in a Project Plan.
"Specifications"	means the specifications of the Product; an example of which is specified in Appendix D, which may be amended from time to time in accordance with this Agreement.
"Suite Fee"	has the meaning set out in Clause 8.1.
"Term"	has the meaning given in Clause 14.1.
"Third Party"	means any party other than Forty Seven, Lonza and their respective Affiliates.

In this Agreement references to the Parties are to the Parties to this Agreement, headings are used for convenience only and· do not affect its interpretation, references to a statutory provision include references to the statutory provision as modified or re-enacted or both from time to time and to any subordinate legislation made under the statutory provision, references to the singular include the plural and vice versa, and references to the word "including" are to be construed without limitation.

2 Performance of Services

2.1 Performance of Services. Subject to clause 2.5, Lonza shall itself and/or through its affiliates, diligently carry out the Services at the Facility as provided in the Project Plan and use commercially reasonable efforts to perform the Services without any material defect and according to the estimated timelines as set forth in the Project Plan (owing to the unpredictable nature of the biological processes involved in the Services, the timescales set down for the performance of the Services are estimated only). Lonza shall retain appropriately qualified and trained personnel with the requisite knowledge and experience to perform the Services in accordance with this Agreement. Lonza may subcontract or delegate any of its rights or obligations under this Agreement to perform the Services to its Affiliate(s); provided that Lonza shall be responsible for each such Affiliate's performance or non-performance under this Agreement as if Lonza itself were performing such activities. Lonza may engage an External Laboratory to provide some of the Services provided, that any External Laboratories shall be subject to the same obligations and other provisions contained in this Agreement or any applicable Project Plan. In the event of a dispute Lonza shall use its reasonable endeavours to enforce such obligations upon such External Laboratories and pass onto the Customer whatever remedies it obtains from such External Laboratories provided always that Lonza shall not be responsible for any services performed by such External laboratories.

2.2 Engineering Batches. Lonza shall manufacture Engineering Batches in accordance with the Project Plan, the other applicable terms of this Agreement and the Quality Agreement. Forty Seven shall have the right to make whatever further use of the non-cGMP Engineering Batches as it shall determine, provided that Forty Seven pays for any such Batches manufactured in accordance with this Section 2.2 at the rate set forth in Clause 8.1, such use is not for human use and does not violate any Applicable Laws. Lonza makes no warranty that Engineering Batches will meet CGMP and Specifications, but Lonza will use commercially reasonable efforts to meet CGMP and Specifications with respect to each Engineering Batch. If Lonza determines that an Engineering Batch does meet cGMP and the Specifications, it will release such Engineering Batch as a cGMP Batch. Regardless of whether any Engineering Batch meets cGMP or the Specifications, Forty Seven shall pay to Lonza the Price for such Engineering Batch plus the Raw Materials Fee associated with such Engineering Batches.

2.3 cGMP Batches. Lonza will, in accordance with the terms of this Agreement and Quality Agreement, manufacture at the Facility and release to Forty Seven, cGMP Batches that comply with the Manufacturing Process, cGMP and the Specifications, together with a Certificate of Analysis (such manufacture, "cGMP manufacture"); provided, however, that (i) Lonza is not obligated to commence cGMP manufacture until at least [*] has been manufactured in compliance with cGMP and Specifications and (ii) after any change in the process for such Product agreed to or requested by Forty Seven, Lonza shall not be obligated to recommence cGMP manufacture until at least [*] has been manufactured in compliance with cGMP and Specifications. Prior to commencement of cGMP manufacturing, Lonza shall review the process assumptions. In the event that there is a material difference in the process assumptions as compared with the process results demonstrated during the manufacture of Engineering Batches, the Parties shall meet to discuss in good faith a revision to the Batch Price to reflect such difference.

2.4 Process Validation Batches. Lonza shall manufacture and deliver Process Validation Batches as mutually agreed by Parties sufficient to document the operability and reproducibility of the Manufacturing Process and permit the Parties to complete and file the necessary regulatory documents.

2.4.1 Prior to commencement of Process Validation Batches, Lonza and Forty Seven shall agree a process validation plan identifying the validation requirements of the Manufacturing Process. All process validation activities are excluded from the Price of Process Validation Batches shall be approved by Forty Seven in advance and shall be paid for by Forty Seven at the Price set out in the applicable Project Plan. Any regulatory support activities (including pre-Approval inspection) required and agreed to by Forty Seven to support the Approval of the Product from the Facility shall be performed and supported by Lonza as reasonably requested by Forty Seven. The cost of all such regulatory support activities are excluded from the Price of Process Validation Batches, shall be approved by Forty Seven in advance, and shall be paid for by Forty Seven at the Price set out in the applicable Project Plan.

2.5 Manufacturing Process. Any changes to the Specifications or the Manufacturing Process for a Product shall be carried out in accordance with the Quality Agreement and Lonza's standard operating procedures.

2.6 Supply of Forty Seven Information and Forty Seven Materials. Forty Seven shall supply to Lonza all Forty Seven Information and Forty Seven Materials, and other information or materials that may be reasonably required by Lonza to perform the Services. Lonza shall not be responsible for any delays arising out of Forty Seven's failure to provide such Forty Seven Information, Forty Seven Materials, or other information or materials reasonably required to perform the Services to Lonza, and [*], including, if applicable, [*].

2.7 Forty Seven Materials.

2.7.1 Sale or License. All Forty Seven Materials shall remain the property of Forty Seven, and the transfer of physical possession of any such Forty Seven Materials to, and the physical possession of such Forty Seven Materials by, Lonza, including its Affiliates and/or any External Laboratory shall not be (nor be construed as) a sale, lease, offer to sell or lease, or other transfer of title of such materials to Lonza including its Affiliates and/or any External Laboratories, provided that the Cell Line shall be subject always to the terms of the GS License.

2.7.2 Limited Use. Lonza including its Affiliates and any External Laboratories shall not use the Forty Seven Materials for any purpose other than as necessary for the performance of the Services. Subject to clause 2.1, Lonza, including its Affiliates and any External Laboratories will not provide or transfer any Forty Seven Materials to any Third Party without the prior written consent of the Forty Seven. Lonza, its Affiliates and/or any External Laboratories shall only use the Forty Seven Materials in accordance with this Agreement and Applicable Laws.

2.7.3 No Modification or Derivation. Lonza, its Affiliates and External Laboratories shall not attempt to alter or modify the Forty Seven Materials in any way, or to make any derivatives or analogs thereof, without the express prior written consent of Forty Seven, and shall not under any circumstances attempt, directly or indirectly, to analyze, characterize, reverse engineer or otherwise derive the structures, sequences, or constructs of the Forty Seven Materials.

2.7.4 Care of Use. Lonza agrees to use, and shall cause its Affiliates and External Laboratories to use reasonable care in the use, handling, storage, containment, transportation and disposition of the Forty Seven Materials. Lonza shall not use, nor authorize the use of, any Forty Seven Materials on or in humans for any purpose under any circumstances.

2.8 Raw Materials. Lonza shall procure all required Raw Materials as well as consumables, other than those Raw Materials that are Forty Seven Materials, Forty Seven shall be responsible for payment in accordance with this Clause 2.8, Clause 8.5 and Clause 14.3.2(b) for all consumables and Raw Materials ordered or irrevocably committed to be procured by Lonza in accordance with this Agreement. Upon cancellation of any Batch by Forty Seven, or termination of this Agreement all such unused Raw Materials shall be paid for by Forty Seven, at the cost incurred by Lonza plus the Raw Materials Fee, within [*] days of invoice and at Forty Seven's option, either (a) delivered to Forty Seven or (b) disposed of by Lonza; provided that upon any such cancellation or termination, Lonza shall use commercially reasonable efforts to cancel or mitigate any obligation to purchase Raw Materials.

2.9 Safety Stock. Lonza will, unless Forty Seven instructs Lonza otherwise, and subject to Forty Seven paying the appropriate Raw Materials Fee, maintain a sufficient safety stock of Raw Materials (including a safety stock of Resin) in accordance with Lonza's standard policies or as otherwise agreed in writing by the Parties.

2.10 Records. Lonza will maintain in accordance with the Quality Agreement records and samples relating to the manufacture of the Product.

3 Project Management / Steering Committee

3.1 Project Plans. With respect to a new project to be governed by this Agreement, a new Project Plan shall be added by agreement in a writing signed by the Parties and appended to Appendix A. Each Project Plan shall include a description of the Services to be provided, the Product to be manufactured, Specifications, a schedule for completion of the Project Plan, pricing details, and such other information as is necessary for relevant Services. In the event of a conflict between the terms of a Project Plan and this Agreement, the terms of this Agreement will govern unless the Parties expressly agree otherwise in writing. Any modifications or amendments to the Project Plans shall be expressly agreed in writing and signed by the Parties.

3.2 Project Management. With respect to each Project Plan, each party will appoint a project manager who will be the party responsible for overseeing the Project Plan.

3.3 Steering Committee. Each Party shall name a mutually agreed upon equal number of representatives for the Steering Committee, which shall meet twice per calendar year, or as otherwise mutually agreed by the Parties. In the event that a Steering Committee dispute cannot be resolved, such dispute shall be escalated to a senior executive of each of Forty Seven and Lonza.

The primary function of the Steering Committee is to ensure the ongoing communication between the Parties and discuss and resolve any issues arising under this Agreement. In addition to the primary function described above, the Steering Committee shall also take on the following responsibilities:

3.3.1 discuss and seek resolution of issues around management of the Services;

3.3.2 agree and monitor deadlines and milestones for the Services;

3.3.3 discuss and recommend any changes to the Services (although such changes will not take effect until they have been incorporated into a written amendment to the Project Plan which has been signed by the Parties).

3.4 Person in Plant. Forty Seven shall be permitted to have, at no additional cost, [*] at the Facility as reasonably requested by Forty Seven, at any time during the Manufacturing Process for the purpose of observing, reporting on, and consulting as to the performance of the Services. Such employee shall be subject to and agree to abide by confidentiality obligations to Third Parties and Lonza's customary practices and operating procedures regarding persons in plant, and such employee agrees to comply with all instructions of Lonza's employees at the Facility.

4 Quality

4.1 Responsibility for quality assurance and quality control of Product shall be allocated between Forty Seven and Lonza as set forth in the Quality Agreement and in Lonza standard operating procedures. If there is a conflict between the terms and conditions of this Agreement and the Quality Agreement, the terms and conditions of this Agreement shall prevails. If the Quality Agreement is not in place at the Effective Date, Lonza and Forty Seven commit to enter into the Quality Agreement in a timely manner, but in no event later than the commencement of cGMP manufacturing under this Agreement.

4.2 Provisions regarding inspections by Regulatory Authorities and audits shall be set out in the Quality Agreement.

5 Insurance

5.1 Each Party shall, during the Term and for [*] years after delivery of the last Product manufactured or Services provided under this Agreement, obtain and maintain at its own cost and expense from a qualified insurance company, comprehensive general liability insurance including, but not limited to, contractual liability coverage and product liability coverage in the amount of at least [*] per claim. Each Party shall provide the respective other Party with a certificate of such insurance upon reasonable request.

6 Assigned Capacity, Alternate Product, Forecasting, Ordering and Cancellation

6.1 Assigned Capacity.

(a) Lonza shall manufacture [*] Engineering Batch in [*] and such Engineering Batch is non-cancellable. Lonza shall manufacture [*] cGMP Batches per year during the Assigned Capacity. Lonza will use commercially reasonable efforts to accommodate Forty Seven's Forecast as set out in clause 6.3 below, provided however that, except as expressly set forth in this Agreement (including Section 6.1(b)), [*] and subject to [*], Lonza shall [*].

(b) Whether a cGMP Batch is manufactured within the Assigned Capacity shall be measured from the Commencement Date of such cGMP Batch and for the purposes of clarity, such Assigned Capacity shall be from [*] to [*], unless (i) the Term is extended pursuant to Clause 14.1, in which case the Assigned Capacity shall continue through [*] or (ii) Lonza and Forty Seven mutually agree on terms of a commercial agreement that modifies or replaces the Assigned Capacity and/or (iii) Forty Seven provides written notice ("[*] Notice") to Lonza that Forty Seven wishes to [*] with the intention that [*], provided Forty Seven provides such [*] Notice to Lonza no later than [*], provided further that if Lonza does not receive such [*] Notice on or before [*], the Assigned Capacity [*]. The Assigned Capacity shall be [*] cGMP Batches per year at 2,000 litre scale at Lonza's Facility. Subject to the foregoing provisions, the above cGMP Batches shall be regarded as a binding commitment on the Parties for the Term, and (except as set forth in Clauses [*]) [*].

6.2 Alternate Product. Forty-Seven may request Lonza to manufacture Alternate Product(s) in place of or in addition to the CD47 Product within the Assigned Capacity provided always that any such Alternate Products does not exceed Lonza's then current standard

processing times and subject to Lonza's agreement, and the negotiation and execution of an amended Project Plan agreed between the Parties that shall set out the price and terms for the transfer of the Alternate Product into the Facility and for payment of all such additional costs as reasonably incurred by Lonza in completion of such transfer. If an Alternate Product is introduced, the number of cGMP Batches to be manufactured within the Assigned Capacity in each year may be revised as agreed in writing by the Parties.

6.3 Forecasting and Ordering.

(a) No later than the first (1st) day of each calendar quarter, Forty Seven shall supply Lonza with a written forecast showing Forty Seven's good faith estimated quarterly Commencement Date requirements for Batches to be manufactured within the Assigned Capacity at Lonza's Facility and any Additional cGMP Batches (as defined below) requested by Forty Seven to be manufactured at Lonza's Facility in the following [*] month period or the remainder of the Term, whichever is less (the "Forecast"). No later than [*] days following Lonza's receipt of a Forecast, Lonza shall provide written notice to Forty Seven of whether it has (as of the date of receipt of the Forecast) capacity available to manufacture the number of Batches forecasted therein in accordance with the schedule proposed by Forty Seven and shall provide Forty Seven with an estimated production schedule showing the estimated Commencement Date and estimated delivery date of each Batch ("Forecast Response"). The forecast and notice of available capacity given in this Clause 6.3 shall not be binding on Forty Seven or Lonza, except as otherwise set forth in Clause 6.1. For the avoidance of doubt, no notice from Lonza to Forth Seven provided pursuant to this Clause 6.3 shall relieve Lonza of its obligations under Clause 6.1, except as permitted by Clause 6.4.

(b) Forty Seven may place firm purchase orders for its requirement for Additional cGMP Batches at least [*] months prior to the desired Commencement Date of each such Batch unless otherwise mutually agreed. Lonza shall accept or reject Forty Seven's orders for Additional cGMP Batches within [*] calendar days of Lonza's receipt of the purchase order; provided that if Lonza fails to accept or reject a purchase order within such [*] calendar day period, [*]. Lonza shall use commercially reasonable efforts to accept all purchase orders submitted by Forty Seven in accordance with this Section 6.3(b). Each accepted purchase order is a "Binding Purchase Order." All Binding Purchase Orders shall be subject to the cancellation provisions in Clause 6.5.

6.4 Rescheduling. [*] reschedule the Commencement Date with respect to any cGMP Batch, provided that the rescheduled Commencement Date is no earlier or no later than [*] days from the Commencement Date originally estimated (i) in the portion of the Forecast Response relating to the then-current first [*] months of the Assigned Capacity or (ii) at the time of Lonza's acceptance of the binding purchase order for any Additional cGMP Batches.

6.5 Cancellation of cGMP Batches. If Forty Seven cancels (i) any cGMP Batch within the Assigned Capacity it shall not receive any refund or rebate of the Suite Fee (except as set forth in this Clause 6.5 or Clause 6.7), and (ii) any Additional cGMP Batch, as defined below, for which Lonza accepted a purchase order, (A) Forty Seven shall pay [*] of the Price for such cancelled Additional cGMP Batch if Forty Seven provides written notice of

cancellation of such Additional cGMP Batch to Lonza less than or equal to [*] months prior to the Commencement Date of such Additional cGMP Batch or (B) Forty Seven shall pay [*] of the Price for such cancelled Additional cGMP Batch if Forty Seven provides written notice of cancellation of such Additional cGMP Batch to Lonza more than [*] months but less than or equal to [*] months prior to the Commencement Date of such Additional cGMP Batch. In addition, Forty Seven shall pay for all costs associated with the cancelled cGMP Batch that Lonza has incurred, or is irrevocably committed to pay, including the costs of Raw Materials and the Raw Materials Fee, in accordance with Clause 2.8. Lonza shall use commercially reasonable efforts to sell all or any part of the Assigned Capacity ("Additional cGMP Batch Capacity") that Forty Seven has notified Lonza that it does not wish to use, but Lonza does not make any commitment, warranty or representation that it will be successful in finding any Third Party customer (existing or new) to fill such excess Assigned Capacity and/or Additional cGMP Batch Capacity. If Lonza is able to sell all or any part of such excess Assigned Capacity to a Third Party for a new project, Lonza shall refund to Forty Seven [*] the Suite Fee for such year with respect to each manufacturing slot Lonza is able to sell to a Third Party. If Lonza is able to sell all or any part of such excess Additional cGMP Batch Capacity to a Third Party for a new project, Lonza shall refund to Forty Seven [*] the Price paid by Forty Seven for the cancelled Additional cGMP to the extent [*]. In addition, Forty Seven may refer potential Third Party customers to Lonza in respect of any such excess Assigned Capacity and/or Additional cGMP Batch Capacity, provided that Lonza shall at all times have the sole and absolute discretion whether or not it decides to enter into discussions with such referred Third Party customers.

6.6 In the event that the parties agree any additional stages of work to be added to the Project Plan ("Additional Project"), the prices for such Additional Work shall be calculated based on Lonza's standard pricing at the time of agreement on such Additional Work. ·Once the Additional Work has been added into this Agreement, the pricing for such Additional Work shall be subject to review in accordance with the provisions of Clause 8.4.

7 Delivery and Acceptance

7.1 Delivery. All Product shall be delivered [*] (as defined by incoterms®2010) [*] and with respect to the Product, title and risk of loss shall transfer to Forty Seven upon Release in accordance with this provision. For the avoidance of doubt, shipping or transportation of the Products, whether or not any arrangements are made by Lonza on behalf of the Forty Seven, shall be made at the sole risk and expense of the Forty Seven.

7.2 Storage

7.2.1 Forty Seven shall arrange for shipment and take delivery of each Batch from the Facility, at Forty Seven's expense, within [*] days after Release or pay applicable storage costs. Lonza shall provide storage on a bill and hold basis for such Batch(es) at no charge for up to [*] days; provided that any additional storage beyond [*] days will be subject to availability and, if available, will be charged to Fort Seven and will be subject to a separate agreement. In addition to clause 8.2, Forty Seven shall be responsible for all value added tax (VAT) and any other applicable taxes, levies, import, duties and fees of whatever nature imposed as a result of any storage (other than taxes on Lonza's income). Notwithstanding anything to the contrary contained in this Agreement, in no event shall Lonza be required to store any Batch for more than [*] calendar days after Release. Within [*] days following a written request from Lonza, Forty Seven shall provide Lonza with a letter in form satisfactory to Lonza confirming the bill and hold status of each stored Batch.

7.2.2 The Products shall be stored by Lonza at Lonza's premises in accordance with Lonza's standard operating procedure, subject always to audit by Forty Seven in accordance with the Quality Agreement and clause 7.2.1. Lonza shall keep all such Products and Forty Seven Materials free of all security interests, liens and other encumbrances and Lonza shall retain control thereof and shall not transfer the same to any Third party unless otherwise agreed in writing by the Parties.

7.3 Acceptance/Rejection of Product

7.3.1 Promptly following Release of cGMP Batches, Forty Seven shall inspect such cGMP Batches and shall have the right to test such Batches to determine compliance with the Specifications. Forty Seven shall notify Lonza in writing of any rejection of a cGMP Batch based on any claim that it fails to meet Specifications within [*] days of Release, after which time all unrejected cGMP Batches shall be deemed accepted, subject to Forty Seven's right to reject any cGMP Batch for latent defects set out in this clause 7.3.1. Forty Seven shall inform Lonza in writing in case of latent defects (i.e. not discovered by routine quality control means), promptly upon discovery of such defects but no later than [*] after delivery of the Product.

7.3.2 In the event that Lonza believes that a cGMP Batch has been incorrectly rejected by Forty Seven, Lonza must notify Forty Seven in writing within [*] days (such notice, the "Dispute Notice") and Lonza may require, that Forty Seven provide to it cGMP Batch samples for testing. Lonza may retain and test the samples of such cGMP Batch. In the event of a discrepancy between Forty Seven's and Lonza's test results such that Lonza's test results determine that the cGMP Batch conforms with the Specifications, or there otherwise exists a dispute between the Parties over whether such cGMP Batch fails to conform to the Specifications or the extent to which such failure is attributable to a given Party, the Parties shall use good faith efforts to resolve any such discrepancy or dispute; provided that if such dispute cannot be settled within [*] days from the receipt of the Dispute Notice, then the Parties will submit a sample of the cGMP Batch to an independent laboratory and require the independent laboratory promptly to review records, test data and perform comparative tests and/or analyses on samples of the Product that allegedly fails to conform to Specifications. Such Independent laboratory shall be mutually agreed upon by the Parties. The independent laboratory's results shall be in writing and shall be final and binding save for manifest error. Unless otherwise agreed to by the Parties in writing, the costs associated switch such testing and review shall be borne by the Party against whom the Independent laboratory rules.

7.3.3 Subject to clauses 2.2 and 2.3, in the event that it is determined (by the Parties or the independent laboratory) that any cGMP Batch failed to conform with the Specifications (each a "Failed Batch") and such failure was [*] ("Lonza Responsibility") then Lonza shall replace such Failed Bath at its sole cost and expense, including bearing the cost of obtaining any Raw Material, Resin or other material required for the manufacture of such replacement cGMP Batch. Such replacement shall be made as promptly as practicable, subject to available

manufacturing capacity after the confirmation of Lonza Responsibility and in any case as soon as reasonably possible after confirmation of Lonza Responsibility. [*] acknowledges and agrees that [*] with respect to a Failed Batch that is a Lonza Responsibility [*], and in furtherance thereof, [*]. Lonza shall not be responsible for the cost of Raw Materials or Forty Severn Materials consumed in any Batch which failed to meet Specifications except to the extent set forth in this Clause 7.3.3.

8 Price and Payment

8.1 Suite Fee and Batch Fees. Forty Seven shall pay Lonza an annual Suite Fee of [*]. Except as set forth under this agreement, the Suite Fee is payable in full regardless of utilization by Forty Seven and the Suite Fee shall not be reduced or refunded if Forty Seven does not make full use of the Assigned Capacity. In addition to the foregoing, Forty Seven shall pay Lonza (i) [*] for each Engineering Batch manufactured by Lonza and (ii) [*] for each additional cGMP Batch, including any process Validation Batches), manufactured in any calendar year after the first [*] cGMP Batch(es), manufactured in such year (each an "Additional cGMP Batch")

8.2 Other Services. In addition to Clause 8.1, pricing for the Services (other than the manufacture of Batches within the Assigned Capacity, Engineering Batches and Additional cGMP Batches) provided by Lonza are set out in, and based on the assumptions and information set out in, the applicable Project Plan. In the event of changes to the Services based on Forty Seven's request which result in additional costs, the Parties shall execute a written amendment to this Agreement.

8.3 Raw Materials, Resins, Raw Materials Fees and Safety Stock. In addition to the Suite Fee and Batch fees in accordance with Clause 8.1, and he prices payable under Clause 8.2, Forty Seven shall pay for all Raw Materials, Resins, Safety Stock and the Raw materials Fee.

8.4 Unless otherwise indicated in writing by Lonza, all prices and charges are exclusive of value added tax (VAT0 and of any other applicable taxes, levies, import, duties an fees of whatever nature imposed by or under the authority of any government or public authority and all such charges applicable to the Services (other than taxes on Lonza's income) shall be paid by Forty Seven. When sending payment to Lonza, the Forty Seven shall quote the relevant Invoice number in its remittance advice.

8.5 Payment Terms.

8.5.1 Suite Fee. The Suite Fee shall be payable in [*] instalments each year, with the first payment due on [*] and the second payment due on [*] and thereafter payable [*] during the Term. Subject to clause 14, Forty Seven will pay the Suite Fee to Lonza for the Term of this Agreement.

8.5.2 Batch Fees. Lonza shall issue invoices to Forty Seven for [*] of the Price for each Engineering Batch and each Additional cGMP Batch upon commencement thereof and [*] upon Release of each such applicable Batch, unless otherwise stated in the Project Plan.

8.5.3 Raw Materials and Raw Materials Fee. Lonza's Cost for Raw Materials and the Raw Materials Fee for each Batch shall be invoiced upon the Release of each such Batch. Lonza will provide a list of the Raw Materials and the unit price reflecting Lonza's Cost for each component of the Raw Materials (excluding any Lonza Intellectual Property). Resins shall be invoiced at [*].

8.5.4 All invoices are strictly net and payment must be made within [*] days of date of Invoice. Payment shall be made without deduction, deferment, set-off, lien or counterclaim.

8.6 If in default of payment of any undisputed invoice on the due date, Interest shall accrue on any amount overdue at the lesser of (i) rate of [*] above the London Interbank Offered Rate (LIBOR) or (ii) the maximum rate allowable by applicable law, Interest to accrue on a day to day basis until full payment; and Lonza shall, at its sole discretion, and without prejudice o any other of its accrued rights, be entitled to suspend the provision of the Services and or delivery of Product until all overdue amounts have been paid in full including interest for late payments.

8.6.1 Price Adjustment. Not more than once per calendar year and with effect from [*], Lonza may adjust the Price for Services in accordance with [*] based upon any change in the index from the previous calendar year or increase the Price by [*], by providing Forty Seven [*] days prior written notice of such adjustment. The new Price reflecting such Price adjustment shall be effective for any Services and/or Batch for which the Commencement Date is on or after the effective date of Lonza's notice to Forty Seven of the Price adjustment.

8.6.2 In addition to the above, the Price may be changed by Lonza not more than once per calendar year, upon prior written notice to Forty Seven (providing reasonable detail in support thereof), to reflect an increase of more than [*], as compared to the prior calendar year, in Lonza's costs to manufacture the Product (other than any change in the cost of Raw Materials), including any change In an environmental, safety or regulatory standard that is outside of Lonza's control and substantially impacts Lonza's cost and ability to perform the Services, provided that (i) any such Increase up to [*] shall be [*] and (ii) to the extent any such increase is more than [*], the amount of such increase above [*] shall be [*] such that the Price shall be Increased by [*]. Notwithstanding the foregoing, in no event shall the Price be increased by more than [*] for the purposes of this clause 8.6.2 in any calendar year, except with respect to any such increase to the extent attributable to [*], in which case [*].

9 [Intentionally Omitted.]

10 Intellectual Property

10.1 Background Intellectual Property. Neither Party will as a result of this Agreement, acquire any right, title, or interest in any Background Intellectual Property of the other Party or any of Its Affiliates.

10.2 New Forty Seven intellectual Property. Subject to Clauses 10.1 and 10.3, Forty Seven shall own all right, title, and interest in and to any and all Intellectual Property that Lonza and/or its Affiliates, the External Laboratories or other contractors or agents of Lonza develops,

conceives, invents, first reduces to practice or makes, solely or jointly with Forty Seven or others as a result of the receipt of the Forty Seven information, Forty Seven Materials and/or any Products (collectively; the "New Forty Seven Intellectual Property"). For avoidance of doubt "New Forty Seven Intellectual Property"' shall include any material, processes or other items that solely embody, or that solely are claimed or covered by, any of the foregoing Intellectual Property, but excluding any New General Application Intellectual Property. Lonza shall, and shall cause its Affiliates to, promptly disclose to Forty Seven in writing all New Forty Seven Intellectual Properly.

10.3 New General Application Intellectual Property. Notwithstanding clause 10.2 and subject to the license granted in Clause 10.5, Lonza shall own all right, title and interest in intellectual Property that Lonza and/or its Affiliates, the External Laboratories or other contractors or agents of Lonza, solely or jointly with Forty Seven, develops, conceives, invents, or first reduces to practice or makes in the course of performance of the Services (i) that is, generally applicable to, the development or manufacture of chemical or biological products or product components and not specific to the Product and the use or practice of which would not require the use or disclosure of Forty Seven Information, Forty Seven Materials or Forty Seven Background Intellectual Property, or (ii) is an improvement of or direct derivative of any Lonza Background Intellectual Property and/or Lonza Information (collectively the "New General Application Intellectual Property"). For avoidance of doubt, "New General Application Intellectual Property" shall include any material, processes or other items that embody, or that are claimed or covered by, any of the foregoing Intellectual Property.

10.4 Assignment of New Forty Seven Intellectual Property. Lonza hereby assigns, and shall cause its Affiliates to assign, to Forty Seven all of its right, title and interest in any New Forty Seven Intellectual Property. Lonza shall execute, and shall cause its personnel as well as its Affiliates, External Laboratories or other contractors or agents and their personnel, involved in the performance of the Services to execute, any documents reasonably required to confirm Forty Seven's ownership of the New Forty Seven Intellectual Property, and any documents required to apply for, maintain and enforce any patent or other right in the New Forty Seven intellectual Property. This clause 10.4 shall be subject to the terms of the Prior MSA and the GS Licence. Subject to the terms and conditions as set forth in this Agreement and the GS Licence, the Cell Line (excluding any Lonza Background Intellectual Property and New General Application Intellectual Property), shall be the sole and exclusive property of Forty Seven, and Lonza hereby assigns to Forty Seven all of its right, title and interest in and to the Cell Line.

10.5 Subject to the terms and conditions set forth herein, Lonza hereby grants to Forty Seven, a non-exclusive, world-wide, fully paid-up, irrevocable, transferable license, including the right to grant and authorize sublicenses, under the New General Application Intellectual Property (a) to make, have made, use, sell, offer for sale and import the Products manufactured under this Agreement and (b) to the extent necessary to practice and exploit Forty Seven's rights in and to the New Forty Seven Intellectual Property in the Products.

10.6 Forty Seven hereby grants Lonza the non-exclusive right to use the Forty Seven Information, Forty Seven Background Intellectual Property, Forty Seven Materials, New Forty Seven Intellectual Property, the Cell Line, and any and all other intellectual property supplied by or on behalf of the Forty Seven, during the Term solely for the purpose of fulfilling its obligations under this Agreement.

11 Warranties

11.1 Lonza warrants that:

11.1.1 The Services shall be performed in accordance with this Agreement (including all Appendices hereto) and Applicable Laws;

11.1.2 subject to the provisions set out in clause 2.2 and clause 7.3.3, the manufacture of Product shall be performed in accordance with Applicable Law and cGMP and the Products will, at the date of delivery, meet the Specifications;

11.1.3 to the best of Lonza's knowledge and as on the Effective Date of this Agreement, the use by Lonza of the Manufacturing Process wilt not infringe any rights (including without limitation any intellectual or industrial property rights) vested in any Third Party, and Lonza will not knowingly include in the Manufacturing Process any elements that infringe any such intellectual or industrial property rights vested in any Third Party; provided however that Lonza gives no warranty that the use by Lonza including its Affiliates of the Manufacturing Process in association with Forty Seven Materials and/or Forty Seven Information in undertaking the Services shall not infringe any Third Party intellectual or industrial property rights;

11.1.4 it or its Affiliate holds all necessary permits, approvals, consents and licenses to, enable it or such Affiliate to perform the Services to be performed by it or such Affiliate, as applicable, at the Facility (subject always to Clause 11.2.3) or such other Lonza facility where the Parties may agree in writing that Product may be manufactured;

11.1.5 it has the necessary corporate authorizations to enter into and perform this Agreement;

11.1.6 as on the Effective Date of this Agreement, Lonza including its Affiliates have not been debarred by a Regulatory Authority nor have debarment proceedings against Lonza including its Affiliates been commenced. Lonza will promptly notify Forty Seven in writing if any such proceedings have commenced or if Lonza including its Affiliates is debarred by a Regulatory Authority. In the event that Forty Seven receives such notice from Lonza or otherwise becomes aware that Lonza including its Affiliates is debarred by a Regulatory Authority; then Forty Seven shall have the right to terminate this Agreement In accordance with clause 14.2.1 and in such an event the Forty Seven shall pay to Lonza of all accrued and unpaid obligations up to the date of termination, to the extent not previously been paid by Forty Seven;

11.1.7 title to all Product shall pass to Forty Seven as set forth in Clause 7.1 free and clear of any security interest, lien or other encumbrance in favour of Lonza; and

11.1.8 each employee of Lonza, a Lonza Affiliate and/or each External Laboratory who will receive or have access to Forty Seven Information or who will perform Services will be subject to written obligations (i) to assign to Lonza any and all right, title and interest in and to all Intellectual Property developed by such employee or External Laboratory in connection with the performance of Services in accordance with this Agreement and (ii) to protect the Forty Seven Information in accordance with terms at least as protective of the Forty Seven Information as the terms of this Agreement, in each case prior to the earlier of any disclosure of Forty Seven Information to such employee or External Laboratory or the commencement of any such performance by such employee or External Laboratory.

11.2 Forty Seven warrants that:

11.2.1 to the best of the Forty Seven's knowledge, Forty Seven has all the rights necessary to permit Lonza and its Affiliates to perform the Services in accordance with the terms of this Agreement without infringing the Intellectual Property rights of any Third Party;

11.2.2 Forty Seven will promptly notify Lonza in writing if it receives or is notified of a formal written claim from a Third Party that Forty Seven Information and/or Forty Seven Background Intellectual Property, Forty Seven Materials, New Forty Seven Intellectual Property, the Cell Line; and/or any and all other information, materials and Intellectual Property supplied by or on behalf of the Forty Seven, or that the use by Lonza thereof for the provision of the Services infringes any Intellectual Property or other rights of any Third Party;

11.2.3 to the best of Forty Seven's knowledge, Forty Seven has all the rights necessary to provide, and permit Lonza and its Affiliates and the External Laboratories to use for the purposes of this Agreement, the Forty Seven Information, Forty Seven Background Intellectual Property, Forty Seven Materials, New Forty Seven Intellectual Property, the Cell Line (subject to the terms of the GS Licence) and any and all other information, materials and Intellectual Property supplied by or on behalf of the Forty Seven, and that the use of anything referred to in this clause 11.2.3 will not infringe the Intellectual Property rights of any Third Party; and

11.2.4 Forty Seven has the necessary corporate authorizations to enter into this Agreement.

11.2.5 as on the Effective Date of this Agreement, Forty Seven including its Affiliates have not been debarred by a Regulatory Authority nor have debarment proceedings against Forty Seven including its Affiliates been commenced. Forty Seven will promptly notify Lonza in writing if any such proceedings have commenced or if Forty Seven including its Affiliates is debarred by a Regulatory Authority.

11.3 DISCLAIMER: THE WARRANTIES EXPRESSLY SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, AND ALL OTHER WARRANTIES, BOTH EXPRESS AND IMPLIED, ARE EXPRESSLY DISCLAIMED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

12 Indemnification and Liability

12.1 Indemnification by Lonza. Lonza shall indemnify the Forty Seven, its Affiliates, and their respective officers, employees and agents ("Forty Seven Indemnitees") for any loss, damage, costs, liability and expenses (including reasonable attorney fees) that Forty Seven Indemnitees may suffer as a result of any Third Party claim arising directly out of (i) any material breach of the warranties given by Lonza in Clause 11.1 above and/or (ii) any claims alleging that the Services (excluding use by Lonza, Lonza's Affiliates, contractors

or the External Laboratories of the Forty Seven Information, Forty Seven Background Intellectual Property, Forty Seven Materials, New Forty Seven Intellectual Property, and/or any and all information, materials and other intellectual Property supplied by or on behalf of the Forty Seven (excluding Lonza's host cell lines)) infringe any Intellectual Property rights of a Third Party except, in each case, to the extent that such claims resulted from the negligence, intentional misconduct or breach of this Agreement by any Forty Seven Indemnitees.

12.2 Indemnification by Forty Seven. Forty Seven shall indemnify Lonza, its Affiliates, and their respective officers, employees and agents ("Lonza Indemnitees") from and against any loss, damage, costs, liability and expenses (including reasonable attorney fees) that any Lonza Indemnitees may suffer as a result of any Third Party claim arising directly out of (i) any material breach of the warranties given by Forty Seven in Clause 11.2 above; and/or (ii) any claims alleging that the performance of Services infringes any Intellectual Property rights of third parties; and/or (iii) the manufacture, use, sale, or distribution by or on behalf of any Forty Seven Indemnitee of any Product, including any claims of product liability; and/or (iv) the use by Lonza, any of Lonza's Affiliates, or any External Laboratory in accordance with this Agreement of any Forty Seven Information, Forty Seven Materials, Forty Seven Background Intellectual Property, New Forty Seven intellectual Property and/or any other information, materials or Intellectual Property provided by or on behalf of Forty Seven for the purposes of this Agreement (excluding Lonza's host cell lines); except, in, each case, to the extent that such claims resulted from the negligence, intentional misconduct or breach of this Agreement by any Lonza Indemnitees.

12.3 Indemnification Procedure. If the Party to be indemnified intends to claim indemnification under this Clause 12, it shall promptly notify the Indemnifying Party in writing of such claim. The indemnitor shall have the right to control the defense and/or settlement thereof; provided, however, that the Indemnitor must obtain the prior written consent of the Indemnitee (not to be unreasonably withheld) before entering into any settlement of such Third Party claim that admits fault, wrongdoing or damages (to the extent not readily payable by the indemnitor at the time of settlement) and any indemnitee shall have the right to retain its own counsel at its own expense. The Indemnitee, its employees and agents, shall reasonably cooperate with the indemnitor in the investigation of any liability covered by this Clause 12. The failure to deliver prompt written notice to the indemnitor of any claim, to the extent prejudicial to its ability to defend such claim, shall relieve the indemnitor of any obligation to the indemnitee under this Clause 12.

12.4 DISCLAIMER OF CERTAIN DAMAGES. SUBJECT ALWAYS TO CLAUSE 12.6, IN NO EVENT SHALL EITHER PARTY OR ANY OF ITS AFFILIATES BE LIABLE TO THE OTHER PARTY AND/OR ANY OF THE OTHER PARTY'S AFFILIATES AND/OR ANY OF THE OTHER PARTY'S INDEMNITEES (IN EACH CASE WHETHER IN CONTRACT, TORT, NEGLIGENCE, BREACH OF STATUTORY DUTY OR OTHERWISE, HOWSOEVER ARISING) FOR ANY LOSS OF PROFITS, LOSS OF REVENUES, LOSS OF GOODWILL, LOSS OF REPUTATION, OR FOR ANY INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE OR CONSEQUENTIAL LOSSES OR DAMAGES, ARISING FROM OR RELATED TO THIS AGREEMENT, PROVIDED THAT THIS SHALL NOT PRECLUDE ANY CLAIM BY LONZA FOR ANY UNPAID INVOICES.

12.5 LIMITATION OF LIABILITY. SUBJECT ALWAYS TO CLAUSE 12.6, THE AGGREGATE LIABILITY OF EACH PARTY AND ITS AFFILIATES TO THE OTHER PARTY AND ITS AFFILIATES WITH RESPECT TO ANY CLAIM UNDER OR IN RELATION TO THIS AGREEMENT (WHETHER IN CONTRACT, TORT, NEGLIGENCE, BREACH OF STATUTORY DUTY, UNDER ANY INDEMNITY OR OTHERWISE HOWSOEVER ARISING) SHALL NOT EXCEED, IN THE AGGREGATE, [*].

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

12.6 NOTHING IN THIS AGREEMENT SHALL OPERATE SO AS TO EXCLUDE OR IN ANY WAY LIMIT A PARTY'S, OR ITS AFFILIATE'S, LIABILITY (i) FOR FRAUD, INTENTIONAL MISCONDUCT OR GROSS NEGLIGENCE, OR (ii) FOR DEATH OR PERSONAL INJURY CAUSED BY ITS FRAUD, INTENTIONAL MISCONDUCT OR GROSS NEGLIGENCE OR (iii) FOR ANY OTHER LIABILITY THAT MAY NOT BE EXCLUDED OR LIMITED AS A MATTER OF LAW.

13 Confidentiality

13.1 A Party receiving Confidential Information (the "Receiving Party") agrees to strictly keep secret any and all Confidential Information received during the Term from or on behalf of the other Party (the "Disclosing Party") as well as the terms of this Agreement using at least the same level of measures as it uses to protect its own Confidential Information, but in any case at least commercially reasonable and customary efforts. Confidential Information shall include information disclosed in any form including but not limited to in writing, orally, graphically or in electronic or other form to the Receiving Party, observed by the Receiving Party or its employees, agents, consultants, or representatives, or otherwise learned by the Receiving Party under this Agreement, which the Receiving Party knows or reasonably should know is confidential or proprietary. For the avoidance of doubt, Forty Seven shall be deemed the Disclosing Party with respect to Forty Seven Information and Lonza shall be deemed the Disclosing Party with respect to Lonza information.

13.2 Notwithstanding the foregoing, Receiving Party may disclose to any courts and/or other authorities Confidential Information which is or will be required pursuant to applicable governmental or administrative or public law, rule, regulation or order. In such case the Party that received the Confidential Information will, to the extent legally permitted, inform the other Party promptly in writing and cooperate with the Disclosing Party in seeking to minimize the extent of Confidential Information which is required to be disclosed to the courts and/or authorities. If the Disclosing Party fails to obtain any protective order or other remedy, the Receiving Party shall furnish only that portion of the Confidential Information that is legally required to be disclosed and any Confidential Information so disclosed shall be treated as confidential for all purposes other than such legally compelled disclosure.

13.3 The obligation to maintain confidentiality under this Agreement does not apply to Confidential Information, which:

13.3.1 at the time of disclosure was publicly available; or

13.3.2 is or becomes publicly available other than as a result of a breach of this Agreement by the Receiving Party; or

13.3.3 as the Receiving Party can establish, by competent proof, was rightfully in its possession at the time of disclosure by the Disclosing Party and had not been received from or on behalf of Disclosing Party (or anyone for whom it is responsible); or

13.3.4 is supplied to a Party by a Third Party which was not in breach of an obligation of confidentiality to Disclosing Party or any other party; or

13.3.5 is developed by the Receiving Party independently from and without use of or reference to the Confidential Information, as evidenced by contemporaneous written records.

13.4 The Receiving Party will use Confidential Information of the Disclosing Party only for the purposes of exercising its rights and fulfilling its obligations under this Agreement and will not otherwise make any use of the Confidential Information of the Disclosing Party for its own separate benefit or the benefit of any Third Party including, without limitation, with respect to research or product development or any reverse engineering or similar testing. The Receiving Party agrees to return or destroy promptly (and certify such destruction) on Disclosing Party's request all Confidential Information of the Disclosing Party, except that one copy of such Confidential Information may be kept by the Receiving Party in its confidential files for record keeping purposes only.

13.5 Each Party will restrict the disclosure of Confidential Information of the other Party to such officers, employees, professional advisers, consultants, and actual finance providers of itself and its Affiliates ("Representatives") who have been informed of the confidential nature of the Confidential Information and who have a need to know such Confidential Information solely for the purpose of this Agreement; provided that each Party may disclose the terms of this Agreement to potential finance-providers, acquirers and sublicensees in connection with an applicable financing or acquisition, of or sublicense by such Party. Prior to disclosure to such persons, the Party in receipt of the Confidential Information shall bind its and its Affiliates' Representatives, potential finance provider, potential acquirer and/or potential sublicensee (as applicable) to confidentiality and non-use obligations no less stringent than those set forth herein and shall be fully responsible and liable for all acts and omissions of such persons in violation of this Clause 13. The Receiving Party shall notify the Disclosing Party as promptly as practicable of any unauthorized use or disclosure of the Confidential Information. Lonza may disclose Forty Seven's Confidential Information to Lonza's Affiliates and the External Laboratories, in each case who have a need to know such Confidential Information for the purposes of this Agreement and who are bound by written confidentiality and non-use obligations no less protective than those set forth herein.

13.6 The Receiving Party shall at any time be fully liable for any and all breaches of the confidentiality obligations in this Clause 13 by any of its Affiliates or the employees, consultants and representatives of itself or its Affiliates

13.7 Each Party hereto expressly agrees that any breach or threatened breach of the undertakings of confidentiality provided under this Clause 13 by a Party may cause irreparable harm to the other Party and that money damages may not provide a sufficient remedy to the non-breaching Party for any breach or threatened breach. In the event of any breach and/or threatened breach, then, in addition to all other remedies available at law or in equity, the non-breaching Party shall be entitled to seek injunctive relief and any other relief deemed appropriate by the non-breaching Party.

14 Term and Termination

14.1 Term. This Agreement shall commence on the Effective Date and shall end on the later of the completion of the final cGMP Batch to be manufactured within the Assigned Capacity or the fourth (4th) anniversary of the Effective Date in 2021 unless terminated earlier as provided herein or extended by mutual written consent of the Parties or otherwise in accordance with the terms of this Agreement (the "Term"). The Term may be extended by Forty Seven at its sole option and discretion for a further period of one (1) year by providing written notice of such extension to Lonza, such notice shall be provided no later than [*] and the Parties shall execute a written amendment for such extension.

14.2 Termination. This Agreement may be terminated as follows:

14.2.1 by either Party if the other Party breaches a material provision of this Agreement or a Project Plan and fails to cure such breach to the reasonable satisfaction of the non-breaching Party within [*] days ([*] days for non-payment) following written notification of such breach from the non-breaching party to the breaching party; provided, however, that such [*] day period shall be extended as agreed by the Parties if the identified breach is incapable of cure within [*] days and if the breaching Party provides a plan and timeline to cure the breach, promptly commences efforts to cure the breach and diligently prosecutes such cure (it being understood that this extended period shall be unavailable for any breach regarding non-payment);

14.2.2 by either Party, immediately, if the other Party enters into administration, is declared insolvent is dissolved or liquidated, makes a general assignment for the benefit of its creditors, or files or has filed against it, a petition in bankruptcy or has an administrator or receiver appointed for a substantial part of its assets;

14.2.3 by either Party pursuant to Clause 15;

14.2.4 by customer for any reason upon providing a written notice of no less than [*] to Lonza.

14.3 Consequences of Termination. In the event of termination of this Agreement and subject to always to Clauses is 8.5, 14.4 in 14.5;

14.3.1 all Batches scheduled or in-process with respect to any Product on the effective date of termination shall be deemed to have been canceled, unless this Agreement is terminated by Forty Seven under Clause 14.2.1 or 14.2.2, in which case Forty Seven may elect, by provision of written notice to Lonza, for Lonza to complete manufacture of and deliver in accordance with the terms of this Agreement any such cGMP Batch in-process;

14.3.2 Subjects to the other terms of this Agreement, within [*] days of receipt of an invoice therefor, Lonza shall be compensated for:

(a) all Services rendered in accordance with this Agreement up to the date of termination, including in respect of any Product in-process (including any additional cGMP Batches); and

(b) all costs through the date of termination, including Raw Materials costs and Raw Materials Fees for Raw Materials used or purchased for use in connection with the Project Plan (as set forth in Section 2.8), in each case, to the extent such costs were incurred in accordance with this agreement.

14.3.3 Provided that Forty Seven has made all payments to Lonza in accordance with this Agreement, upon termination or expiration all unused Raw Materials and Forty Seven Materials and Product created pursuant to this Agreement shall, at Forty Seven's election, be delivered to a Customer or disposed of by Lonza and in each case, at cost to Forty Seven.

14.4 In the event of termination of this Agreement by Lonza pursuant to Clause 14.2.1 or 14.2.2, then in addition to Clause 14.3, [*] terminated by Lonza in accordance with Clause 14.2.1 or 14.2.2.

14.5 In the event of termination of this Agreement by Forty Seven pursuant to Clause 14.2.4, then [*] in accordance with the terms of this Agreement and [*] obligations hereunder [*] until the earliest of [*] terminated by Forty Seven in accordance with Clause 14.2.4, or (iii) the termination of this Agreement in accordance with the terms of Clause 14.2.

14.6 General. Expiration or termination of this Agreement for any reason shall not release any Party hereto from any obligation or liability which, as of the effective date of termination, has already accrued to the other Party or which is attributable to a period prior to the effective date of termination nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement. Except as set forth in this Section 14.6 or 14.7, upon expiration or termination this Agreement shall be of no further force or effect.

14.7 Survival. Clauses 2.7, 2.10, 5, 7, 8.6 Error Reference source not found., 10, 11.1.6, 11.2.5, 12, 13, 14, 15, and 16 shall survive the expiration or termination of this Agreement.

15 Force Majeure

15.1 If Lonza is prevented or delayed in the performance of any of its obligations under the Agreement by Force Majeure and gives written notice thereof to Forty Seven specifying the matters constituting Force Majeure together with such evidence as Lonza reasonably can give and specifying the period for which it is estimated that such prevention or delay will continue, Lonza shall be excused from the performance or the punctual performance of such obligations as the case may be from the date of such notice for so long as such cause of prevention or delay shall continue. In such event, Forty Seven's obligations under Clause 8 shall be suspended for so long as such Force Majeure shall continue. Provided that, if such Force Majeure persists for a period of [*] months or more, either Party may terminate this Agreement by delivering written notice to the other Party.

15.2 "Force Majeure" shall be deemed to include any reason or cause beyond Lonza's reasonable control affecting the performance by Lonza of its obligations under the Agreement, including, but not limited to, any cause arising from or attributable to acts of God, strike, lockouts, labor troubles, restrictive governmental orders or decrees, riots, insurrection, war, terrorists acts, or the inability of Lonza to obtain any required raw material, energy source, equipment, labor or transportation.

15.3 With regard to Lonza, any such event of Force Majeure affecting services or production at its affiliates or suppliers shall be regarded as an event of Force Majeure.

16 Miscellaneous

16.1 Severability. If any provision hereof is or becomes at any time illegal, invalid or unenforceable in any respect, neither the legality, validity nor enforceability of the remaining provisions hereof shall in any way be affected or impaired thereby. The Parties hereto undertake to substitute any illegal, invalid or unenforceable provision by a provision which is as far as possible commercially equivalent considering the legal interests and the purpose.

16.2 Amendments. Modifications and/or amendments of this Agreement must be in writing and signed by the Parties.

16.3 Performance by Affiliates. Lonza shall be entitled to instruct one or more of its Affiliates to perform any of Lonza's obligations contained in this Agreement, but Lonza shall remain fully responsible in respect of those obligations and shall be responsible for any action or omission of such Affiliate that would constitute a breach of this Agreement had such action or omission been conducted by Lonza itself.

16.4 Assignment. Neither Party shall be entitled to assign, transfer, charge or in any way make over the benefit and/or the burden of this Agreement without the prior written consent of the other which consent shall not be unreasonably withheld or delayed, save that Lonza shall be entitled without the prior written consent Forty Seven to assign, transfer, charge, sub-contract, deal with or in any other manner make over the benefit and/or burden of this Agreement (i) to an Affiliate or (ii) to any joint venture company of which Lonza is the beneficial owner of at least fifty percent (50%) of the issued share capital thereof or (iii) to any company with which Lonza may merge or (iv) to any company to which Lonza may transfer substantially all of its business or assets and undertakings. Notwithstanding the foregoing, Forty Seven may, [*], assign this Agreement to [*].

16.5 Notice. All notices must be written and sent to the address of the Party first set forth above. All notices must be given (a) by personal delivery, with receipt acknowledged, (b) by facsimile followed by hard copy delivered by the methods under (c) or (d), (c) by prepaid certified or registered mail, return receipt requested, or (d) by prepaid recognized next business day delivery service. Notices will be effective upon receipt or at a later date stated in the notice.

16.6 Governing Law/Jurisdiction.

16.6.1 This Agreement is governed in all respects by the laws of the State of New York without regard to its conflict of laws rules. Subject to Clause 16.6.2, the Parties agree to submit to the jurisdiction of the courts in the State of New York.

16.6.2 Any dispute arising between the Parties under this Agreement will be referred to and finally settled by binding arbitration under the Rules of Arbitration of the International Chamber of Commerce by a single arbitrator knowledgeable in biopharmaceutical research and development related matters and familiar with the biopharmaceutical industry, appointed in accordance with the said Rules. The place of arbitration shall be New York, New York and the arbitration shall be conducted in the English language. The arbitrator's award shall be final and binding. The Parties covenant and agree that they will participate in the arbitration in good faith and that they will share equally the costs of the arbitration, except as

otherwise provided herein. Judgment upon the award rendered in any such arbitration may be entered in any court of competent jurisdiction, or application may be made to such court for a judicial acceptance of the award and an enforcement, as the law of such jurisdiction may require or allow. Notwithstanding the foregoing, nothing in this Clause 16.6 shall prevent either Party from applying to a court of competent jurisdiction for equitable or injunctive relief.

16.7 Rights of Third Parties. The parties to this Agreement do not intend that any term hereof should be enforceable by any person who is not a party to this Agreement, save that Affiliates of Lonza and Affiliates of Forty Seven respectively may rely on the indemnities granted to them and limitations and exclusions of liability contained herein. The Parties may amend this Agreement without the consent of the Affiliates of either Party.

16.8 Announcements / Press Releases. Neither Party shall make any press release or announcement regarding the subject matter of this Agreement without the prior written consent of the other. The Parties shall use reasonable efforts to issue a joint press release within thirty (30) days of the Effective Date regarding the entry into this Agreement.

16.9 Entire Agreement. This Agreement, including for clarity the Appendices hereto, contains the entire agreement between the Parties as to the subject matter hereof and supersedes all prior and contemporaneous agreements solely with respect to the subject matter hereof. For the avoidance of doubt, nothing in this Agreement is intended to or otherwise affects or amends the prior MSA, as amended or the GS Licence between Forty Seven and Lonza Sales AG.

16.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute one and the same document. Each party acknowledges that an original signature or a copy thereof transmitted by facsimile or by .pdf shall constitute an original signature for purposes of this Agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

CONFIDENTIAL

IN WITNESS WHEREOF, each of the parties here too has caused this Agreement to be executed by its duly authorized representative effective as of the date written above.

LONZA BIOLOGICS TUAS PTE LTD

By: /s/ Sylke Hassel
Name: Sylke Hassel
Title: Head of Mammalian Manufacturing Business Unit

By /s/ Andrew Morgan
Name: Andrew Morgan
Title: General Manager, Singapore

FORTY SEVEN INC

By /s/ Mark McCamish
Name: Mark McCamish
Title: CEO

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CONFIDENTIAL

Appendix A
Product and Project Plan

See attached.

[*] (23 pages omitted)

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CONFIDENTIAL

Appendix B

Price

[*]

30

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CONFIDENTIAL

Appendix C
Quality Agreement

See Attached.

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Appendix D
Specifications

[*] (4 pages omitted)

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Appendix E

[*]

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