
Driven by a novel pharmaceutical
platform focused on
SELECTIVE
IMMUNOMODULATION
spring bank
pharmaceuticals

FORWARD LOOKING STATEMENT

This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, among other things, statements, other than historical facts, regarding: the progress, scope, duration or results of clinical trials and preclinical studies of inarigivir soproxil ("inarigivir"), SB 11285 or any of our other product candidates or programs, such as the size, design, population, conduct, cost, objective or endpoints of any clinical trial, or the timing for initiation or completion of or availability of results from any clinical trial (including our Phase 2a clinical trial of inarigivir in patients with chronic Hepatitis B virus); the potential benefits that may be derived from any of our product candidates; our future operations, financial position, revenues, costs, expenses, uses of cash, capital requirements or our need for additional financing; or our strategies, goals, milestones, prospects, beliefs, intentions, plans, expectations, forecasts or objectives. Words such as "anticipates," "believes," "plans," "expects," "projects," "future," "intends," "may," "will," "should," "could," "estimates," "predicts," "potential," "continue," "guidance," and similar expressions sometimes identify forward-looking statements. Any forward-looking statement involves known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by such forward-looking statement, and, therefore, you are cautioned not to place undue reliance on any forward-looking statement. These factors include, but are not limited to: whether our cash resources will be sufficient to fund our continuing operations for the period anticipated; the components, timing, costs and results of our clinical trials, preclinical studies and other development activities involving our product candidates; whether certain top-line results from our clinical trials materially change as more information becomes available; whether results obtained in preclinical studies and clinical trials will be indicative of results obtained in future clinical trials; whether inarigivir, SB 11285 and any of our other product candidates will advance through the clinical trial process on a timely basis and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; and whether, if inarigivir, SB 11285 or any of our other product candidates obtain regulatory approval, it will be successfully distributed and marketed. These and other risks and uncertainties that we face are described in our most recent Annual Report on Form 10-K, filed with the Securities and Exchange Commission (SEC) on February 20, 2018, and in other filings that we make with the SEC from time to time.

All forward-looking statements speak only as of June 7, 2018 and should not be relied upon as representing our views as of any other date. We specifically disclaim any obligation to update any forward-looking statement, except as required by applicable law. All trademarks, service marks, trade names, logos and brand names identified in this presentation are the properties of their respective owners.

This presentation also contains estimates and other statistical data generated by independent parties and by us relating to market size and statistics. These estimates involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

SPRING BANK (NASDAQ:SBPH) **INVESTMENT OPPORTUNITY**

Unique, in-house platform of small molecule immunomodulators

Multiple product opportunities, multiple therapeutic areas

World-class expertise in Hepatitis B development

Deep relationship with Gilead, including funding of co-administration clinical trials

Lead program, selective RIG-I agonist inarigivir, has the potential to be a backbone component of curative combination treatment for HBV

One program in Phase 2 clinical trials, second program progressing towards clinical trials late this year or early 2019

All assets wholly-owned with multiple data read-outs in next 12–18 months

Strong opportunity for partnership and value creation

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DIFFERENTIATED PLATFORM & NEAR TERM CATALYSTS **FOR POTENTIAL VALUATION ACCELERATION**

Small Molecule Nucleotide Hybrid Platform

Platform focused on immunomodulatory targets based on endogenous nucleotide ligands

Rapid evolution of nucleotide scaffolds into development candidate small molecule nucleotide hybrids

Reduces discovery cycle and potentially shortens development time

DIFFERENTIATED PLATFORM & NEAR TERM CATALYSTS **FOR POTENTIAL VALUATION ACCELERATION**

Inarigivir, selective RIG-I agonist, in Ph II development for HBV with planned initiation of Ph III in 2019

Clinical collaboration with Gilead

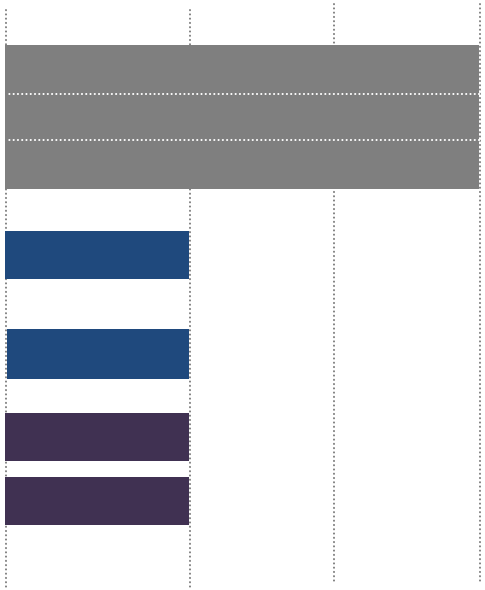
Differentiated, next-generation STING agonist program in Immuno-oncology

SB 11285 will potentially be first IV STING agonist to enter the clinic – late 2018/early 2019

NEAR–TERM DEVELOPMENT CATALYSTS

PROGRESSIVE PIPELINE DESIGNED TO **MEET SIGNIFICANT UNMET NEEDS**

Platform Targets	Compound	Indication
RIG-I	**Inarigivir (oral):**	
	Monotherapy	**HBV**
	Co-Administration with Gilead's Viread®	**HBV**
	Co-Administration with Gilead's Vemlidy®	**HBV**
	SB 9225 inarigivir + tenofovir disoproxil fumarate fixed-dose combination	**HBV**
	SB 9400	**HIV Latency, Other Viral Diseases**
STING Agonists	**SB 11285** (intravenous, intratumoral)	**Immuno-oncology**
	SB 11325 and SB 11396	**Multiple ADC Targets in Immuno-oncology**



CHRONIC HBV:
A GLOBAL PROBLEM

Chronic HBV infection prevalence (approximate)

~257MM

GLOBALLY

~17MM

US AND EUROPE

Estimated Deaths

870,000

(IN 2017)

HBV global therapeutics sales

$2.2B

(IN 2017)

LOW TREATMENT RATES OF CHRONIC HBV PATIENTS TODAY

- Estimated 10-15% in the US and Europe
- Estimated 1% in the Asia-Pacific region

LOW FUNCTIONAL CURE RATES WITH CURRENT STANDARD OF CARE

AN OPPORTUNITY TO CHANGE THE CHRONIC HBV PARADIGM BY **ELEVATING THE FUNCTIONAL CURE RATE**

A new therapy with:

1. **An excellent safety profile**
2. **Ease of administration**
3. **An improved finite course of treatment leading to functional cure rates greater than 8-10%***

HBV is complex and heterogenous

Combinatorial approach will be required

Immunomodulation will need to be the backbone

"Combination of antiviral and immune modulatory therapies will likely be needed to achieve functional hepatitis B virus cure."

Lok A, Zoulim F, Dusheiko G, Ghany MG. Hepatitis B cure: from discovery to regulatory approval. *J Hepatol*. 2017;67:847-861.

*Represents the approximate number of patients that achieved HBsAg clearance after 48 weeks of treatment with αIFN + Viread®

HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; IFN, interferon.

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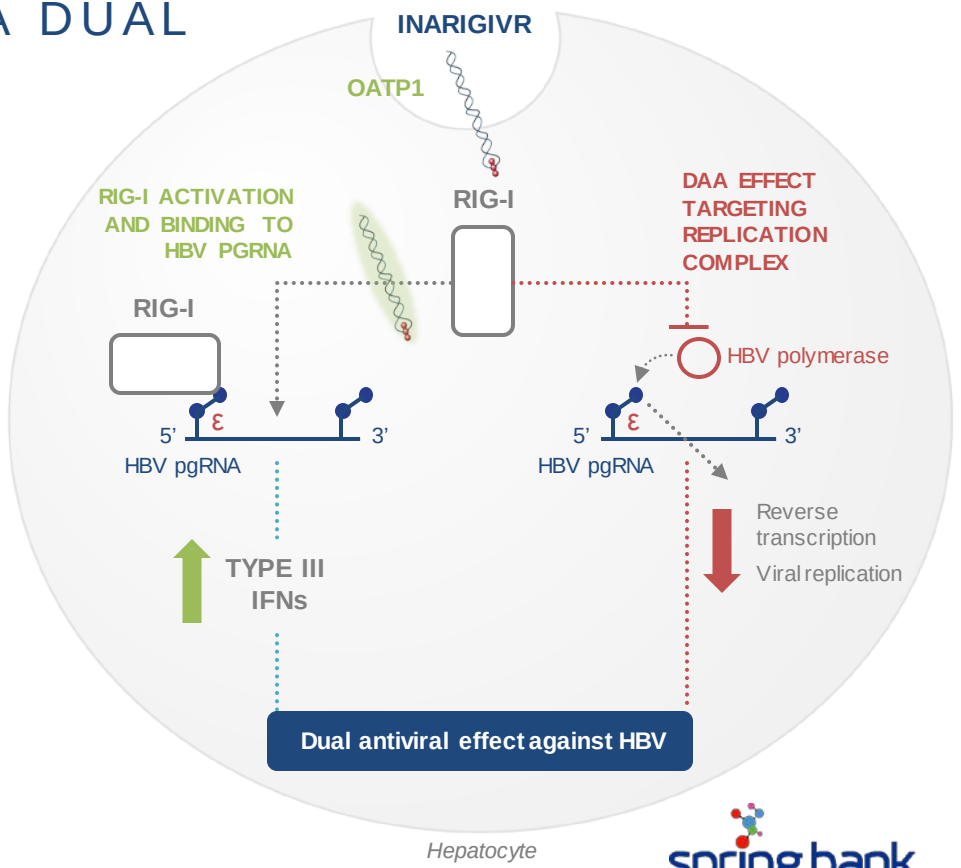
INARIGIVIR:
A NOVEL, ORAL, SELECTIVE IMMUNOMODULATOR WITH A DUAL MECHANISM OF ACTION

- Potent, selective RIG-I agonist
- Hepatic-selective immunomodulator
- Orally bioavailable
- Highly effective dose demonstrated in HBeAg-ve patients
- Favorable safety profile to date
- Deep collaboration with Gilead for co-administration studies with “NUCs”

INARIGIVIR: A NOVEL, ORAL SELECTIVE IMMUNOMODULATOR WITH A DUAL MECHANISM OF ACTION

INARIGIVIR is a RIG–I AGONIST which:

- **Restores hepatic selective innate and adaptive immune response** stimulating the production of type III IFNs
- Inhibits the HBV replication complex via a direct acting anti-viral effect
- Results in significant anti-HBV activity with reduction in HBV DNA, HBV RNA, HBsAg and cccDNA



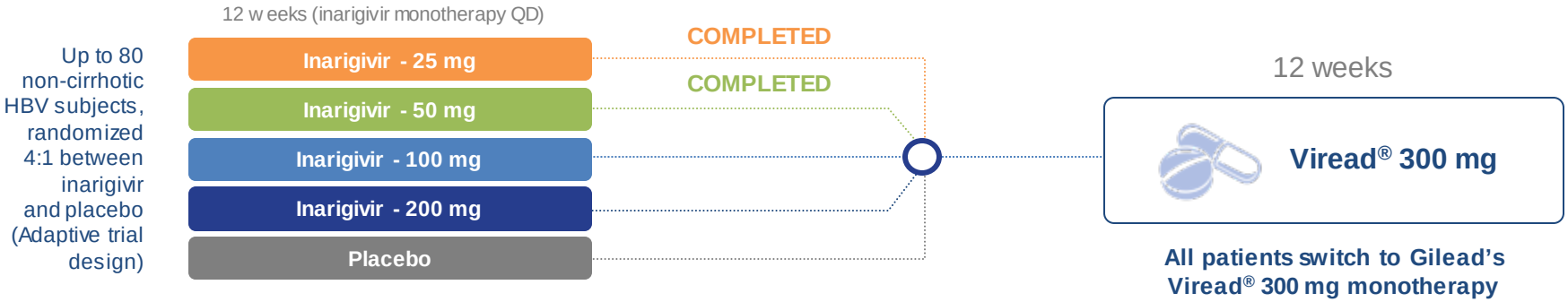
HBV, hepatitis B virus; IFN, interferon; pgRNA, pregenomic RNA; RIG-I, retinoic acid-inducible gene-I.

Sato et al. *Immunity*. 2015;42:123-132.

CLINICAL STUDIES OF **INARIGIVIR IN HBV**

ACHIEVE PHASE II MONOTHERAPY DOSE ESCALATION STUDY

Clinical trial collaboration with Gilead to evaluate inarigivir with nucleotide analog Viread® 300 mg



PRIMARY ENDPOINT

Safety and antiviral activity at 12 weeks

SECONDARY ENDPOINT

PK, change in serum HBV DNA, HBsAg, HBV RNA and HBeAg from baseline to weeks 6, 12, 14, 16, and 24

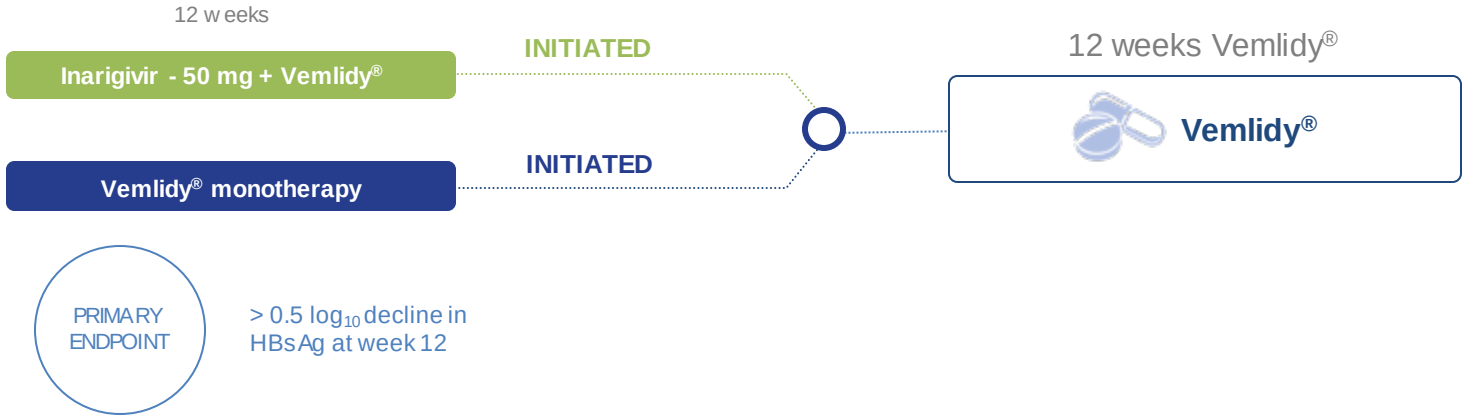
Full results for all patients treated with inarigivir monotherapy anticipated in 2H 2018

DNA, deoxyribonucleic acid; HBeAg, hepatitis B e antigen; RNA, ribonucleic acid; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; QD, once daily.

GLOBAL HBV CLINICAL COLLABORATION **WITH GILEAD**

Gilead Phase II HBV Study

inarigivir co-administered with Vemlidy® (tenofovir alafenamide) 25 mg



Initiated by Gilead in 1Q 2018 (currently enrolling)

Funded by Gilead

ANTI-VIRAL EFFECT AT WEEK 12 AFTER INARIGIVIR MONOTHERAPY (25 MG AND 50 MG DAILY)

Mean	Placebo (n=8)	Inarigivir 25 mg HBeAg +ve (n=9)	Inarigivir 25 mg HBeAg –ve (n=7)	Inarigivir 50 mg HBeAg +ve (n=10)	Inarigivir 50 mg HBeAg –ve (n=4)
Baseline HBV DNA log_{10}	6.36	7.86	5.69	7.79	4.55
Change in HBV DNA log_{10}	+0.33	**-0.37***	-0.86	**-0.61#**	-1.05
Baseline HBsAg log_{10}	3.75	4.31	3.17	4.12	2.96
Change in HBsAg log_{10}	-0.18	-0.08	-0.34	-0.07	0
Baseline HBV RNA log_{10}	4.23	6.36	4.20	6.58	3.15
Change in HBV RNA	+0.99	-0.32	**-1.84$**	-0.46	**-3.15&**

t-test vs placebo
*p<0.03, #p<0.005, $p<0.01, &p<0.01

Patients with responses of	Placebo (n=8)	HBeAg +ve (n=19)	HBeAg –ve* (n=11)
HBV DNA > 1 log_{10}	0	2	6
HBV DNA > 0.5 log_{10} <1 log_{10}	1	5	5
qHBsAg > 0.5 log_{10}	1#	1	4
qHBeAg > 0.5 log_{10}	1	2	N/A
HBV RNA > 3 log_{10} or undetectable	0	0	5
HBV RNA > 1 log_{10} < 3 log_{10}	0	3	1
HBV RNA > 0.5 log_{10} <1 log_{10}	2	4	3

N/A = Not Applicable; * 2 HBeAg NEG HBV RNA not detected at baseline; # Excludes flare patient

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ANTI-VIRAL EFFECT AT WEEK 24 COMPARED TO WEEK 12 AFTER TENOFOVIR SWITCH

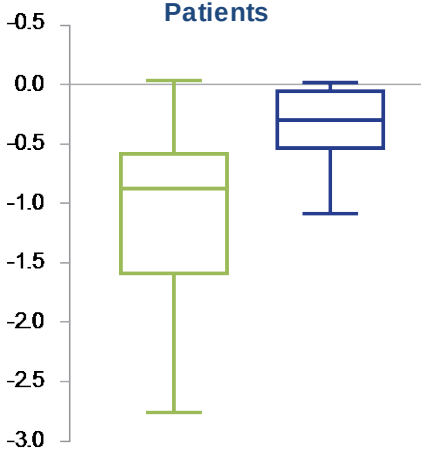
Mean	Placebo (n=8)	Inarigivir 25 mg HBeAg +ve (n=9)	Inarigivir 25 mg HBeAg –ve (n=7)	Inarigivir 50 mg HBeAg +ve (n=10)	Inarigivir 50 mg HBeAg –ve (n=4)
Week 12 HBV DNA log_{10}	6.69	7.49	4.83	7.24	3.50
Change in HBV DNA log_{10}	-4.14	-4.11	-4.20	-3.84	-3.10
Week 12 HBV RNA log_{10}	5.23	6.04	2.27	6.13	All LLOQ
Change in HBV RNA log_{10}	-1.36	-0.55 (1<LLOQ)	-0.92 (5<LLOQ)	+0.10 (1<LLOQ)	N/A

Patients with responses of	Placebo (n=8)	HBeAg +ve (n=19)	HBeAg –ve* (n=11)
HBV DNA undetectable	1	1	9
qHBsAg > 0.5 log_{10}	1	5	4
HBV RNA undetectable (<LLOQ)	3*	2	9
HBV RNA > 1 log_{10}	0	1	0

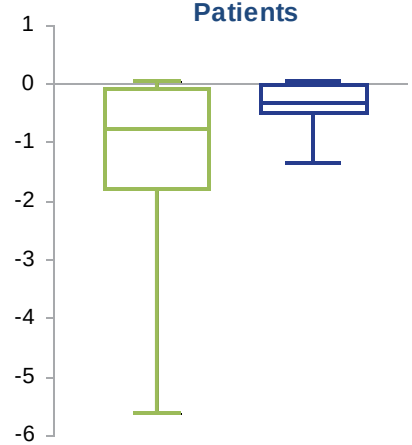
* = All HBeAg -ve patients

BASELINE HBV DNA AND HBsAg IS A STRONG PREDICTOR OF RESPONSE TO INARIGIVIR

Change in HBV DNA to Week 12 (log_{10})–All treated Patients



Change in HBV RNA to Week 12 (log_{10})–All treated Patients



At baseline:

HBsAg < 10^4 (n =26)

HBsAg > 10^4 (n =20)

- Inarigivir has demonstrated dose and exposure-dependent potent antiviral activity in HBV patients without cirrhosis with significant reductions in HBV DNA and HBV RNA
- Inarigivir has shown to be highly effective in HBeAg-negative patients and have an enhanced effect in patients with low viral burden
- Inarigivir is the only oral agent which has demonstrated significant reduction in HBsAg in up to 30% of patients in first two cohorts
- Inarigivir uniquely suited to be a potential backbone component for anti-viral combinations to promote functional cure for HBV

INARIGIVIR OPPORTUNITY
HBV HETEROGENEITY

HBeAg - ve

- 70-80% of chronic HBV patients
- Dominant population in US & EU
- Older age group
- Lower viral burden

HBeAg + ve

- 20-30% of chronic HBV patients
- Younger population
- High viral burden

POTENTIAL MARKET ENTRY

NUC-Suppressed

~100,000 patients in US

~100,000 patients in EU

Inarigivir

"Stop & Shock"

POTENTIAL OPPORTUNITY EXPANSION

Naïve or new to treatment

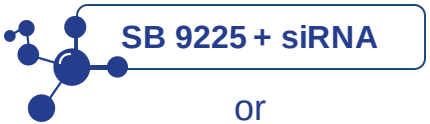
Opportunity to **increase treatment rates** with improved functional cure

Treatment rates

US	EU
~12-15%	**~10-12%**

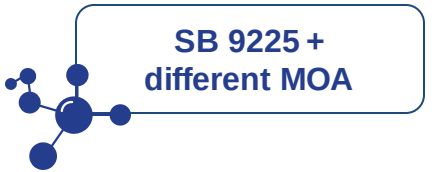
SB 9225

SB 9225



SB 9225 + siRNA

or



SB 9225 + different MOA

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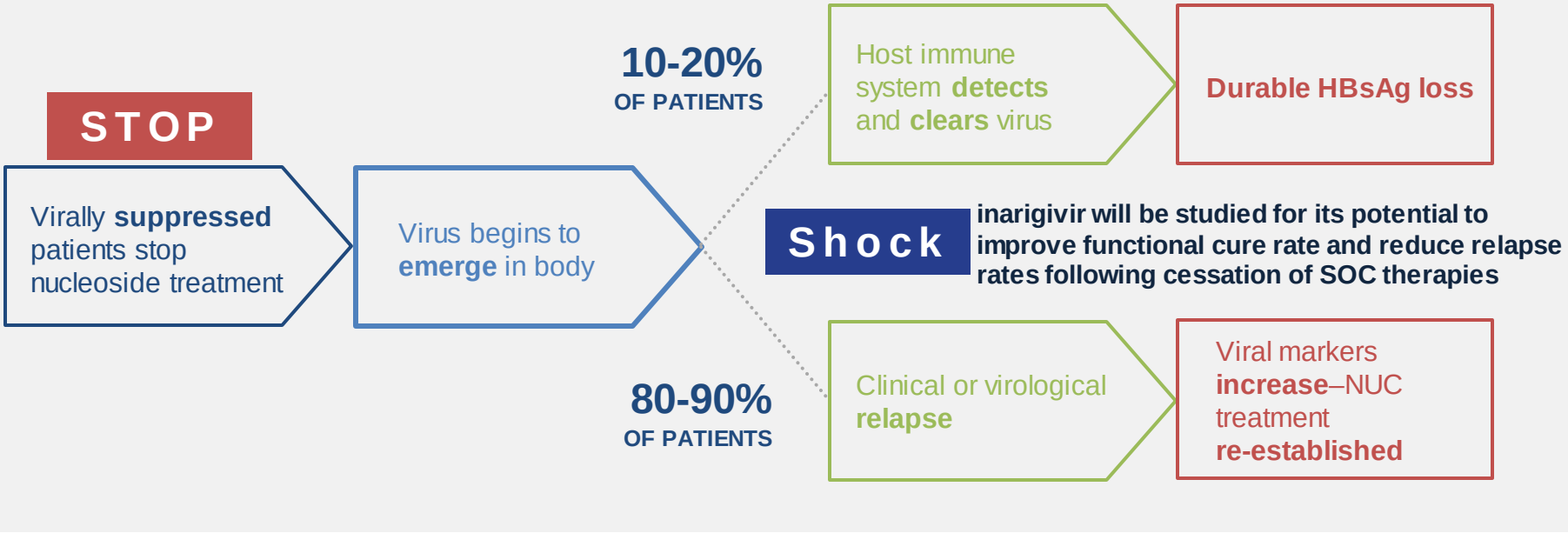
STOP & SHOCK


STOP
Virally **suppressed** patients stop nucleoside treatment
Virus begins to **emerge** in body
10-20%
OF PATIENTS
Host immune system **detects** and **clears** virus
Durable HBsAg loss
Shock
inarigivir will be studied for its potential to improve functional cure rate and reduce relapse rates following cessation of SOC therapies
80-90%
OF PATIENTS
Clinical or virological **relapse**
Viral markers **increase**–NUC treatment **re-established**

STOP & SHOCK

- Stop approaches are at the **forefront of innovative clinical HBV Treatment**
- The addition of inarigivir to the Stop regimen (Stop and Shock) builds on the clinical trend of stopping treatment and allowing the host immune system to clear remaining infection in treatment suppressed patients
  - Takes advantage of unique MOA of inarigivir
    - **Shock the immune system awake**
  - Logical next step to
    - **Stop regimens currently being used by leading physicians**

INARIGIVIR
LEADING THE WAY IN THE HBV DEVELOPMENT SPACE

	2018	2019
ACHIEVE Dose escalation Phase II	200mg monotherapy by EOY	
50 mg Inarigivir + Vemlidy Gilead Study	by EOY	
Inarigivir Monotherapy "Stop & Shock" Ph IIb / III		Start 2019 into 2020
SB 9225 (inarigivir + TDF) Ph IIb 24 wks naïve HBV		Start Q4 2018 into 2019

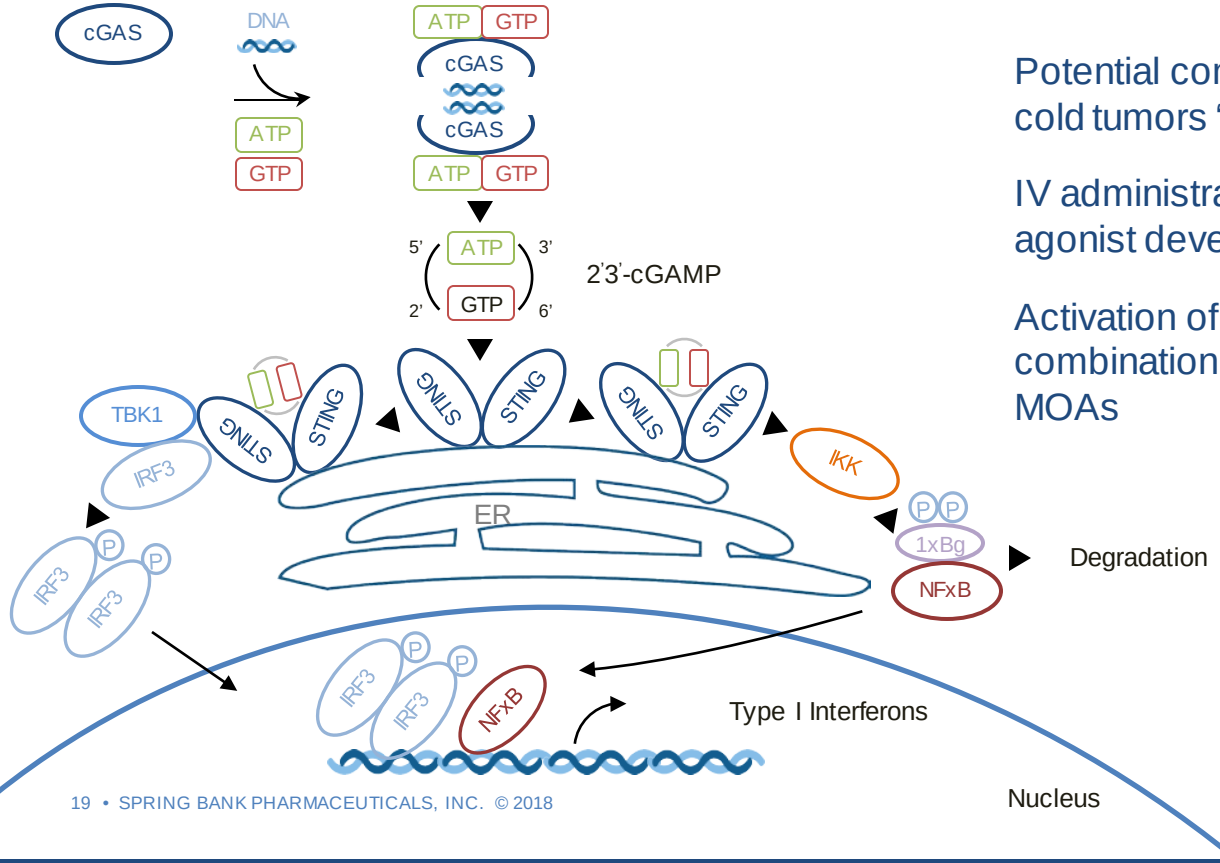
LEAD COMPOUND

SB 11285

A NOVEL SYNTHETIC

STING AGONIST

STING AGONIST –
POTENT ACTIVATOR OF INNATE IMMUNE RESPONSE

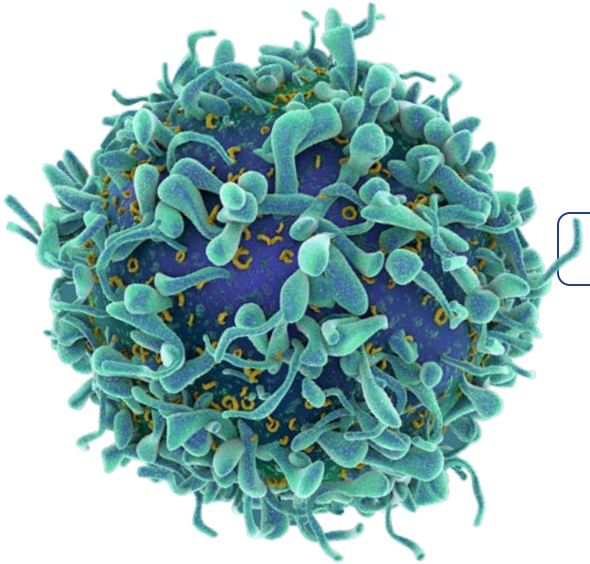


Potential component of I/O strategies to turn cold tumors "hot"

IV administration could be next frontier of STING agonist development

Activation of Type I IFN could enhance efficacy in combination with checkpoint inhibitors or other I/O MOAs

SB 11285 – lead next generation STING agonist



Differentiated cyclic dinucleotide / SMNH

Potentially first IV STING agonist to enter clinic

Demonstrated to turn “cold” tumors “hot”

Distinctive chemistry allows for potential conjugation with ADCs for targeted delivery

Shown to be highly potent & efficacious across multiple cancer models, by several ROAs and associated abscopal and tumor memory responses

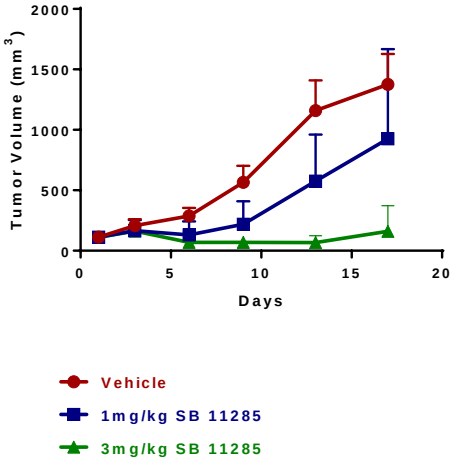
Unique chemistry allows for “self assembly” could enhance immune cell recruitment via IV administration

ADC, antibody-drug conjugates; IV, intravenous; ; IT, intratumoral; SC, subcutaneous; STING, STimulator of INterferon Genes.

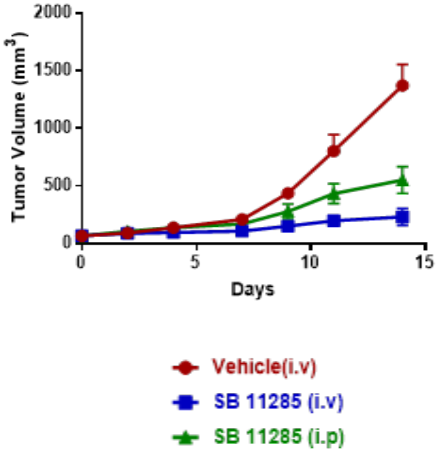
SB 11285 SIGNIFICANTLY INHIBITS TUMOR GROWTH IN **RELEVANT ONCOLOGY MODELS**

Efficacy in relevant oncology animal models demonstrated with intravenous (IV), intraperitoneal (IP) and intratumoral (IT) delivery

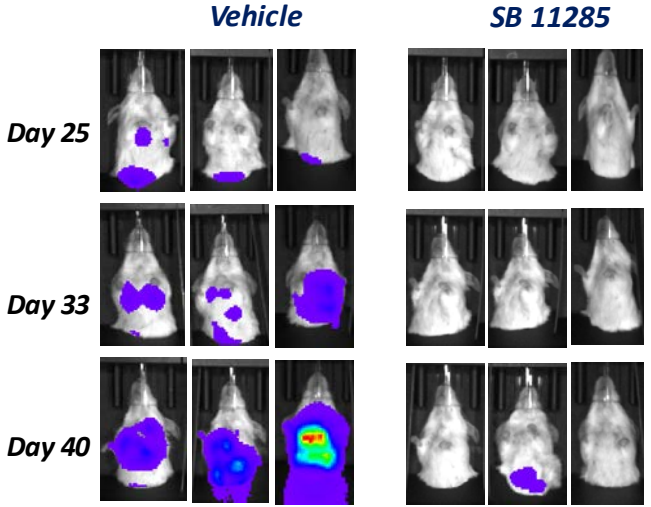
CT26 Colon Cancer (IV)



B16 Melanoma (IV)



4T1 Metastatic Breast Cancer (IP)



THE PATH FORWARD FOR SPRING BANK
POTENTIAL FOR MULTIPLE CATALYSTS

2018

2H 2018

- Complete monotherapy dosing from the ACHIEVE Phase II study
- Submit IND/CTA for SB 11285; initiate Phase Ib clinical trial
- Multiple cohorts in Phase II of inarigivir + NUC combo dosing
- SB 9225 (inarigivir + tenofovir disoproxil fumarate fixed-dosed combination) ready for clinical trials
- Potential completion of Gilead study: inarigivir 50mg + Vemlidy

2019

1H 2019

- Complete ACHIEVE 24 week data
- Initial data from inarigivir + NUC combo dosing
- Initiate global Phase IIb/III “Stop & Shock” clinical trial

2H 2019

- Initiate global Phase IIb SB 9225 24 week clinical trial
- Initiate global Phase II triple combo trial (SB 9225 + differing MOA)
- Initial data from SB 11285 Phase Ib clinical trial

IPO	NASDAQ	Market Cap	Available Funding	Shares Outstanding
2016	**SBPH**	**~$185MM**	**$47MM**[1] end of 2019	**~13MM**[1]

1. At 3.31.2018.

CMC, chemistry, manufacturing and controls; CTA, clinical trial application; IND, Investigational new drug.

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SPRING BANK PHARMACEUTICALS, INC.

A FOCUS ON SIMPLICITY, SAFETY, AND SELECTIVITY

Unique in-house platform to discover small molecule nucleotide hybrid immunomodulatory molecules

World class expertise in HBV

Deep clinical collaboration in HBV with Gilead

Orally administered inarigivir has demonstrated potent antiviral activity in HBV

No safety signals observed to date

SB 9225 (inarigivir + tenofovir disoproxil fumarate fixed-dosed combination):

Advance development in HBV

Next-generation STING agonist program:

Lead SB 11285 anticipated to enter clinic in multiple cancers in late 2018/early 2019

Anticipate **multiple data points for potential valuation enhancements** in the next 12–18 months