# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### FORM 8-K

#### CURRENT REPORT

Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of report (Date of earliest event reported): June 13, 2024

#### SONNET BIOTHERAPEUTICS HOLDINGS, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware	001-35570	20-2932652	
(State or Other Jurisdiction	(State or Other Jurisdiction (Commission of Incorporation) File Number)		
,	,	Identification No.)	
100 Overlook Center Princeton, New 3		08540	
(Address of Principal Exe	(Zip Code)		
Registran	t's telephone number, including area code: (60	9) 375-2227	
(Former	<b>Not Applicable</b> Name or Former Address, if Changed Since L	ast Report)	
Check the appropriate box below if the Form 8-K filing is inte General Instruction A.2. below):	nded to simultaneously satisfy the filing oblig	ation of the registrant under any of the following provisions (see	
☐ Written communications pursuant to Rule 425 under the Se	curities Act (17 CFR 230.425)		
☐ Soliciting material pursuant to Rule 14a-12 under the Excha	ange Act (17 CFR 240.14a-12)		
☐ Pre-commencement communications pursuant to Rule 14d-	2(b) under the Exchange Act (17 CFR 240.14c	I-2(b))	
☐ Pre-commencement communications pursuant to Rule 13e-	4(c) under the Exchange Act (17 CFR 240.13e	-4(c))	
Securities registered pursuant to Section 12(b) of the Act:			
Title of each Class	Trading Symbol(s)	Name of each exchange on which registered	
Common Stock, \$0.0001 par value per share	SONN	The Nasdaq Stock Market LLC	
Indicate by check mark whether the registrant is an emerging § Securities Exchange Act of 1934 (17 CFR §240.12b-2).	growth company as defined in Rule 405 of the	Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the	
Emerging growth company $\square$			
If an emerging growth company, indicate by check mark if the accounting standards provided pursuant to Section 13(a) of the I		transition period for complying with any new or revised financial	
Item 8.01. Other Events.			
On June 13, 2024, the Company presented the presentation attac	shed hereto as exhibit 00.1 and incorporated by	reference into this Item 8 01	
	ned hereto as exhibit 99.1 and incorporated by	reference into this field 6.01.	
Item 9.01. Financial Statements and Exhibits.			
(d) The following exhibit is furnished with this report:			
Exhibit No. Description	T 1 1 1 1 1 2 2 2 2 4		
99.1 <u>Presentation by Sonnet BioTherapeutics Holding</u> 104 Cover Page Interactive Data File (embedded wit			

#### SONNET BIOTHERAPEUTICS HOLDINGS, INC.

Date: June 13, 2024

By: /s/ Pankaj Mohan, Ph.D.
Name: Pankaj Mohan, Ph.D.
Title: Chief Executive Officer



#### FORWARD LOOKING STATEMENTS

This presentation contains forward-looking statements about Sonnet BioTherapeutics based on management's current expectations which are subject to known and unknown uncertainties and risks. Words such as "anticipated," "initiate," "expect," "intend," "plan," "believe," "seek," "estimate," "may," and variations of these words or similar expressions are intended to identify forward-looking statements. Our actual results could differ materially from those discussed due to a number of factors, including, but not limited to, our ability to raise additional equity and debt financing on favorable terms, the success of our R&D programs, our ability to obtain regulatory approval of our clinical assets and other risk factors.

We are providing this information as of the date of this presentation and do not undertake any obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or otherwise. Unless the context requires otherwise, references to "Sonnet," "Company," "we," "us" and "our" refer to Sonnet BioTherapeutics.



### Powering a New Wave of Immune Therapeutics

#### **CORPORATE FOCUS**

Prioritize development of assets with partnering interest Cost-cutting initiative to reduce operating expenses by approximately 30%

Existing material supply agreement with Roche and J&J pipeline evaluation offer licensing expansion opportunities

#### FORTHCOMING MILESTONES

SON-1010: Safety from the Phase 1 monotherapy study, 2H24

SON-1010: Additional safety data from Phase 1b/2a PROC study in combination with atezolizumab, 2H24

SON-1010: Response data from Phase 1 monotherapy study, 1H25

SON-1010: Other updates from Phase 1b/2a PROC study in combination with atezolizumab, 1H25

SON-080: Additional data from CIPN study, 2H24

SON-080: Initiate Phase 2 study in DPN, pending the outcome of any partnering activity

SON-1210: Initiate regulatory authorization process, pending the outcome of any partnering activity

#### PLATFORM TECHNOLOGY

Proprietary, patented Fully Human Albumin Binding (FHAB®) platform provides considerable payload flexibility with asset generation capabilities across major biologic drug classes

- Targeted delivery to the tumor microenvironment with increased in vivo efficacy
- Single or bifunctional drug delivery provides the mechanism of action
- Extended pharmacokinetics (PK) due to binding of native albumin

Sonnet's F<sub>H</sub>AB technology utilizes a single-chain antibody fragment (scFv) capable of delivering one or two active drug moieties

Therapeutic payloads attached via flexible linker peptides

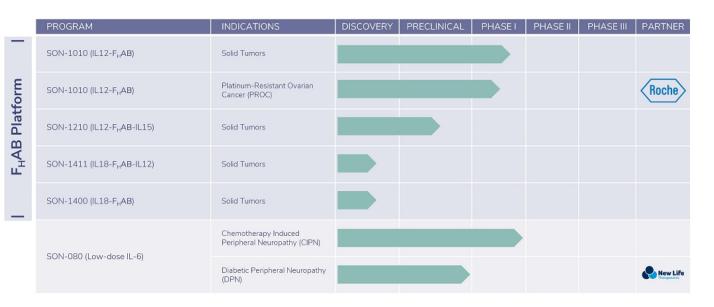
Following administration, Sonnet's F<sub>H</sub>AB derived candidates bind to and "hitch-hike" on endogenous Human Serum Albumin (HSA) for transport to lymphoid tissues and the tumor microenvironment

F<sub>H</sub>AB has been designed to bind, unbind, and rebind to albumin in an on-and-off fashion through a physical bonding mechanism, obviating the need for chemical conjugation

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### Pipeline Overview

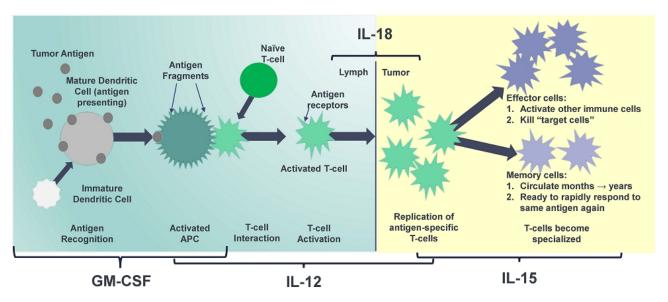




# Sonnet Pipeline Targets



#### Multiple Points of Intervention



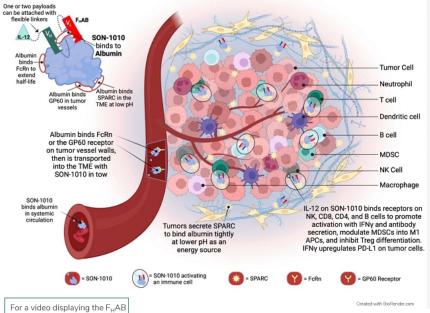
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### F<sub>H</sub>AB PLATFORM TECHNOLOGY



### Sonnet's Technology Advantage





mechanism, please click here

Asset Profile: SON-1010 (IL12-F<sub>H</sub>AB)

Stage: Phase 1b/2a combination study with atezolizumab

initiated in PROC Indications: Solid Tumors

Product Description: Asset delivery and targeting by albumin binding mechanism via the FHAB domain, which results in accumulation of SON-1010 in the microenvironment of solid tumors (TME) through binding to FcRn, GP60, and SPARC, thereby enhancing penetration and retention with increased efficacy. SON-1010 has demonstrated improved pK via binding to FcRn, similar to full MAbs, and improved tumor delivery, all available in a single patented construct.

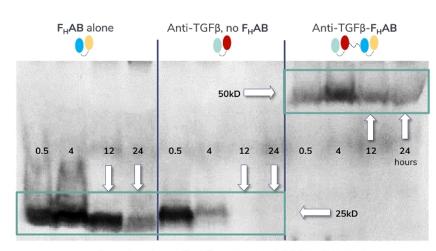
#### Platform Attributes:

- Fully human construct Low/No Immunogenicity
- Mammalian cell production (CHO) Glycosylated
- Small size with linear flexibility Optimized tumor penetration
- Enhanced PK FcRN binding
- Targeted GP60 and SPARC
- Asset Optionality: Single or Bispecific payload capacity
- Modular Rapid asset development

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# F<sub>H</sub>AB: Superior Uptake and Retention in Tumor Tissue

An in vivo demonstration of SPARC-mediated binding with optimized retention using albumin



Results show  $F_HAB$  enhanced EPR = Efficacy

Western blot of Mouse 4T1 (TGFβ positive tumor@150mm3) extracts from mice 0.5-24 hours post IV injection with 100 μg/mouse of F<sub>H</sub>AB, anti-TGFβ or anti-TGF $\beta$ - $F_HAB$ 

F<sub>H</sub>AB present at 0.5 hours, peaks at 4 hours and detectable through 24 hours

Anti-TGFβ present at 0.5 hours, declines at 4 hours and undetectable at 12 and 24

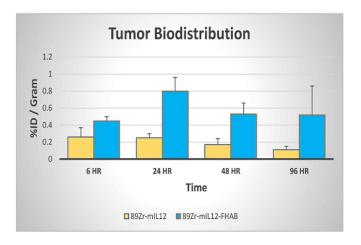
Anti-TGF $\beta$ - $F_HAB$  present at 0.5 hours and detectable through 24 hours



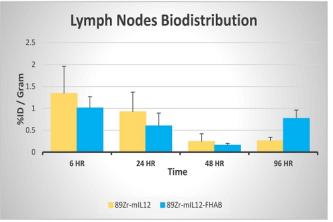
AACR Annual Meeting 2017, Poster #588

# Biodistribution Profile Using Radiolabeled mlL12-FHAB and mlL12 mlL12-FHAB Accumulates in Tumor and Draining Lymph Nodes





Comparative time course accumulation in B16F10 melanoma tumors of  $^{89}Zr\text{-m}IL12$  versus  $^{89}Zr\text{-m}IL12\text{-F}_{H}AB$  at 6, 24, 48, and 96 hours



Comparative time course accumulation in lymph nodes of  $^{89}$ Zr-mlL12 versus  $^{89}$ Zr-mlL12-F<sub>H</sub>AB at 6, 24, 48, and 96 hours

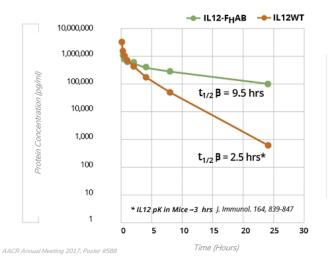
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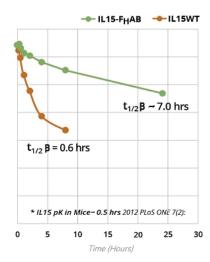
# F<sub>H</sub>AB: Enhanced Pharmacokinetic Characteristics



Comparing the pharmacokinetic characteristics of naked IL-12 and IL-15 versus the same interleukins linked to Sonnet's  $F_HAB$ 

Method: 8 mice C57B/TP, age 9.5 weeks, dose IV, sacrificed @ 5, 15, 30 mins, 1, 2, 4, 8, 24 & 48 hrs. Serum tested by ELISA.





Fusion to F<sub>H</sub>AB increased the plasma half-life of IL-12 > 4x and IL-15 > 10X

IL-12 MW = 70 Kd

IL-12 MW = 70 Kdvs IL-15 MW = 13Kd

# F<sub>H</sub>AB: Defining A Better Platform Technology

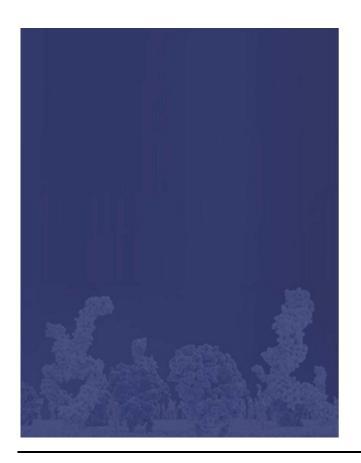


Sonnet F <sub>H</sub> AB Constructs Albumin Binding		PEG 1-PEG-IL-2(active)	Ś	F	-c/lgG hp35 hp40	NHS-II 12	DNA / Viral Gene Therapy Viral Gene Therapy	
ATTRIBUTES	QUALIFIER	ATTRIBUTES	QUALIFIER		ATTRIBUTES	QUALIFIER	ATTRIBUTES	QUALIFIER
Mode	Mono or Bi- Specific	Mode	Mono		Mode	Mono or Bi- Specific	Mode	Mono
PK; Alb binding to FcRn	+++ Dosing 3-4 weeks	PK; Size only	++ Dosing 1-2 weeks		PK; FC Binding to FcRn	+++ Dosing 3-4 weeks	PK	++ Dosing 2-4 weeks
Glycosylated CHO expressed	+	Glycosylated Non mammalian	-		Glycosylated CHO expressed	+	GMP - BSL-2 classified facility	+
Tumor Targeting and Retention	++++ Albumin binds gp60 and SPARC	Tumor Targeting and Retention	-		Tumor Targeting and Retention	++	Tumor Targeting DNA	Intratumoral Injection *
Tumor Penetration, Size and Linear Flexibility	+++ 85-104 kD	Tumor Penetration Globular	+ ~100+ kD		Tumor Penetration Globular	++ 100-300 kD	Tumor Targeting Viral	Viral tumor cell lysis
Controllable Quantity Dosing	+++	Controllable Quantity Dosing	++		Controllable Quantity Dosing	+++	Controllable Quantity Dosing	Issues of variable spread, penetration, resistance and anti- viral immunity

\* No ADCC / CDC Activity

Jung, Oncolmm 2018, 7:e1438800 Greiner, Imm Targ & Ther 2021, 10:155-65 Algazi, Clin Canc Res 2020, 26:2827-37 Martinez ICL 2019-129-1407-18

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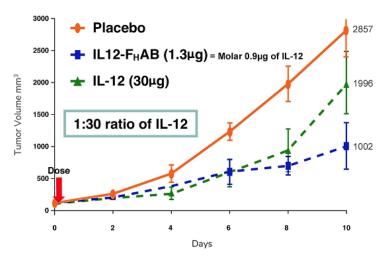




F<sub>H</sub>AB: PRECLINICAL PROOF-OF-CONCEPT

#### SON-1010: Reduces Tumor Growth in Mice

IL12- $F_HAB$  (1.3 $\mu$ g) vs IL-12 (30 $\mu$ g) in B16F10 Melanoma



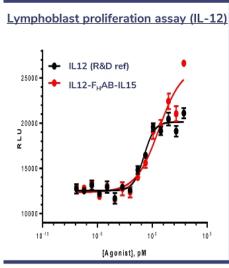
IL-12 (1 $\mu$ g) and IL12- **F**<sub>H</sub>**AB** (1.3 $\mu$ g) are molar equivalent and have similar bioactivity, *in vitro*; however, *in vivo*, **F**<sub>H</sub>**AB** is approximately 30-fold more potent than IL-12 (at day 10, 1.3 $\mu$ g IL12- **F**<sub>H</sub>**AB** > IL-12 30 $\mu$ g)

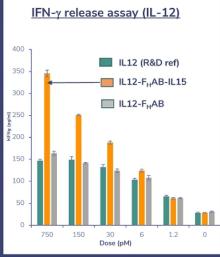
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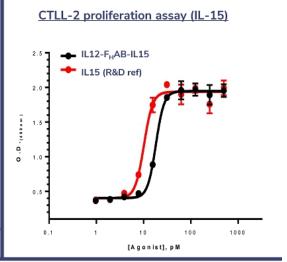
AACR Annual Meeting 2017, Poster #58:

### SON-1210: Optimized Bispecific Activity









- Cell-based assays showed no loss of biological activity for either IL-12 or IL-15, suggesting no steric hindrance of the bispecific construct
- Synergistic effect of IFN-y production was observed with the IL-12, IL-15 bispecific F<sub>H</sub>AB

AACR Annual Meeting 2017, Poster #588

### Flow Cytometry Analysis



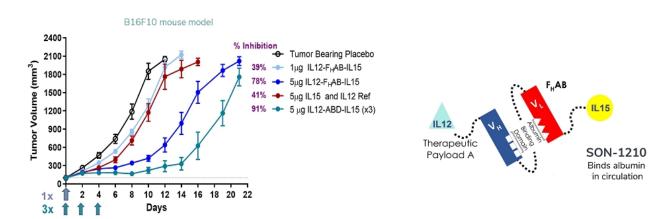
Comparison of Efficacy	IL12-F <sub>H</sub> AB (1µg)		IL12-F <sub>H</sub> AB-IL15 (5µg)		IL18-F <sub>H</sub> AB-IL12 (5µg)	
Comparison of Efficacy Tumor & Spleen	Inhibition 37%		Inhibition 78%		Inhibition 65%	
Immune Cell Type Day 5, TV ~400mm <sup>3</sup>	Tumor	Spleen	Tumor	Spleen	Tumor	Spleen
Cell Population						
T cells	8.0	1.0	0.5	0.9	1.2	0.9
CD4+ T Cells	8.0	0.6	1.2	0.5	1.2	0.7
Th1 Cells	1.6	1.0	1.7	8.0	3.4	1.8
CD8+ T Cells	1.2	0.8	1.4	0.7	6.5	0.9
Cytotoxic CD8+, IFNy	1.8	1.5	3.6	1.7	1.8	1.5
NK Cells	1.5	1.1	3.3	1.3	2.5	1.3
NK Cells, IFNγ	1.7	0.6	6.0	0.7	12.0	2.7
M1 Macrophages	1.4	2.9	1.4	3.0	1.8	3.2
M2 Macrophages	0.2	1.2	0.3	4.0	0.1	3.5
Regulatory (T Reg) Cells	0.9	1.2	0.6	8.0	1.7	1.6

Flow cytometry analysis of interleukin constructs: At Day 5 post single dose, an increase in immune-stimulating cells was observed within tumors, corresponding to a decrease in tumor volume. Also, there was a transition of M2 to M1 in the tumor.  $L18-F_HAB-LL12$  showed the strongest infiltration of immune cells into the tumor, likely due to the biology of L-18.

AACR Annual Meeting 2022, Poster #4229 Sonnet BioTherapeutics | 15

### SON-1210: Positioned For Clinical Development

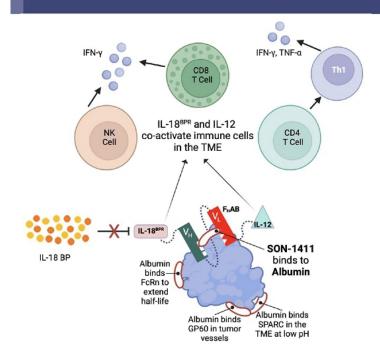




- IL12-F<sub>H</sub>AB-IL15 produced a greater reduction in tumor volume than higher doses of the individual cytokines in the B16F10 mouse model
- SON-1210 elicited no serious adverse events in repeat, subcutaneous dosing in a GLP toxicology study
- SON-1210 was well-tolerated using dosing levels in NHP of at least 50x higher than the highest anticipated human clinical dose level
- · Data show controlled induction of IFNy with no signs of cytokine release syndrome or off-target toxicity

# SON-1411: Improves Immune Activation in the TME

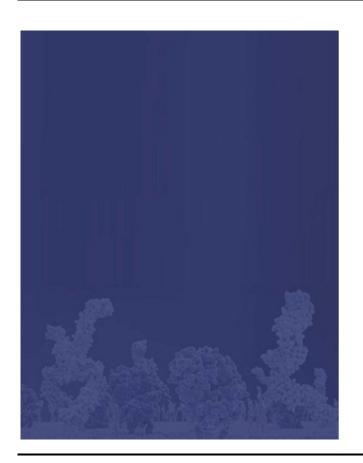




- IL-18 increases CXCL9 & CXCL10 expression, which increases NK, CD8, and CD4 T-cell infiltration into tumors, while IL-12 augments T-cell activation
- Basal expression of CXCL9 & CXCL10 is increased 10-fold in the presence of either cytokine alone, but 50-fold in the presence of both IL-12 & IL-18.
- IL-18 in combination with IL-12 synergistically induces IFN-γ by activating NK, CD8, and CD4 T cells, which upregulates PD-L1 on tumor cells
- Reducing interference by the IL-18 Binding Protein allows full activity of IL-18 locally
- All sequence modifications were checked for predicted absence of immunogenicity – need to study in Phase 1

Nat Rev Immunol (2017) 17: 559-572 British Journal of Cancer (2016) 115: 553-563 Gene Therapy (2011) 18: 898-909 Clinical and Experimental Immunology (2006) 145: 535-544 Biol Blood Marrow Transplant (2014) 463e473

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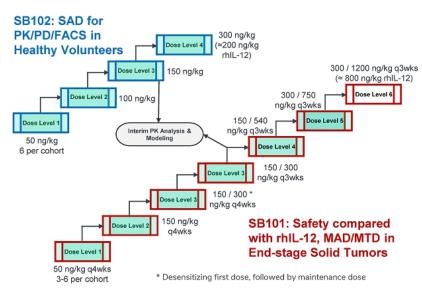




**SON-1010: CLINICAL PROGRAM** 

# Clinical Program: SB101/SB102 Study Designs





- Rapid enrollment of healthy volunteers in the SAD provides clean PK data without interpretation challenges from prior cancer treatment effects
- Simulation using <u>continual reassessment</u> <u>model</u> allows prediction of safe doses in the MAD that have more potential for effect on the tumor micro-environment, encouraging enrollment
- Clinical pharmacology support and HV SAD allows for much lower cost and faster completion
- MTD/RP2D in solid tumor patients provides path to combination studies

Shen, Clin Transl Sci (2019) 12:6 Karakunnel, (2018) J Transl Med 16:336 Gokhale, Exp Hematol Oncol (2014) 3:11 Portielje, Clin Canc Res (1999) 5:3983 Kenney, Front Imm (2024) 15:1362775

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### SB101: Safety Data



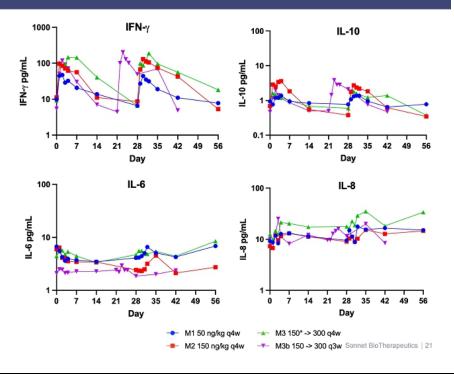
Related TEAEs by Grade	50 ng/kg q4w (N=3)	150 ng/kg q4w (N=3)	150 → 300 ng/kg q4w (N=3)	150 → 300 ng/kg q3w (N=3)	150 → 540 ng/kg q3w (N=3)
Tachycardia (Grade 1)		1 (33.3)			
Nausea (Grade 1)	1 (33.3)				
Chills (Grade 1)		1 (33.3)		1 (33.3)	
Fatigue (Grade 1)		1 (33.3)		1 (33.3)	
Injection site pain (Grade 1)	1 (33.3)	3 (100.0)			
Pain (Grade 1)	1 (33.3)				
Pyrexia (Grade 1)		1 (33.3)	1 (33.3)		1 (33.3)
Decreased appetite (Grade 1)	1 (33.3)				
Oedema peripheral (Grade 1)	1 (33.3)	1 (33.3)			
Arthralgia (Grade 1)	1 (33.3)				
Limb discomfort (Grade 1)	1 (33.3)				
Muscular weakness			1 (33.3)		
Myalgia (Grade 1)	2 (66.7)			1 (33.3)	1 (33.3)
Pain in extremity (Grade 1)	1 (33.3)	1 (33.3)			
Headache (Grade 1)		1 (33.3)		1 (33.3)	
Night sweats (Grade 1)		1 (33.3)			
Rash pruritic (Grade 1)	1 (33.3)			1 (33.3)	
Hot flush (Grade 1)	1 (33.3)				
Abdominal Pain (Grade 1)				1 (33.3)	
Eyelid swelling (Grade 1)				1 (33.3)	
Dysphonia (Grade 1)				1 (33.3)	
Oropharyngeal pain (Grade 1)					1 (33.3)
Lymphadenitis (Grade 1)				1 (33.3)	ì í
Fatigue (Grade 2)	3 (100.0)		1 (33.3)	<u> </u>	
Pruritis (Grade 2)	-			1 (33.3)	
ALT increased (Grade 2)		1 (33.3)			
AST increased (Grade 2)		1 (33.3)			
Lipase Increased (Grade 3)			1 (33.3)		

(unaudited, as of 2/28/23) Sonnet BioTherapeutics | 20

### SB101 Cytokine Assay Results



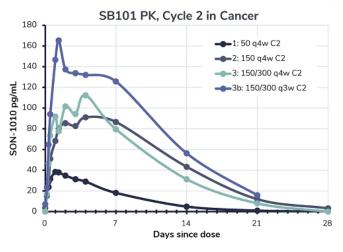
- Primary PD parameters included IFNγ, IL-1β, IL-2, IL-4, IL-6, IL-8, IL-10, and TNFα, assayed using the MSD platform.
- Increases in IFNy (showing an IL-12 effect and potential for tumor control) were dose-related, controlled, and prolonged.
- SON-1010 induced IFNy with both the first and second doses in all patients. The levels peaked at 24 to 48 hours and returned to baseline after 2 to 4 weeks
- The C<sub>max</sub> was about 50 pg/mL after 50 ng/kg SON-1010, 125 pg/mL after 150 ng/kg, and 200 pg/mL after 300 ng/kg.
- Low amounts of IL-10 were induced with each dose in a dose-dependent manner, which could also be a result of the increase in IFNy.
- No consistent pattern of response was seen with IL-1β, IL-6, IL-8, or TNFα and there was no evidence of cytokine release syndrome (CRS) at these doses.

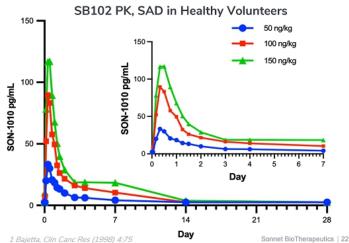


### SON-1010 Interim PK Analysis after Cohort 3



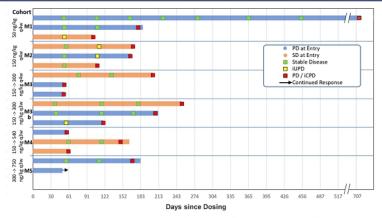
- Typical dose-related increases were seen with SON-1010, with single compartment kinetics in cancer and the potential for two compartments in healthy volunteers
- ▶ The preliminary geometric mean elimination half-life (t<sub>1/2</sub>) was 113 hours in SB101, compared to 12 hours with rhlL-12¹
- C<sub>max</sub> was 39 to 197 pg/mL, and the geomean exposure (AUC<sub>0-inf</sub>) was 8,620 to 43,600 h\*pg/mL
- ▶ The accumulation estimates are not likely to be physiologically significant with dosing of SON-1010 every 3 weeks





#### SB101: Influence on Tumor Size





- The swimmers plot shows the status for each patient and whether they had PD or SD at study entry. If patients are clinically stable
  and have tumor growth that might represent either tumor inflammation (a positive effect of SON-1010) or 'unconfirmed progression'
  (iUPD by iRECIST), they can continue on study until progression is confirmed (iCPD).
- 10 of 16 patients had SD at the first follow-up CT, 6 of whom were progressing at study entry. 7 of 16 (44%) patients remained stable at 4 months, suggesting clinical benefit. The mean PFS is 175 days.
- One patient (#1) with endometrial sarcoma who was progressing at study entry had evidence of improvement after 11 months on SON-1010 with smaller tumors and complete resolution of her ascites. She ultimately progressed at 23 months and her ascites has partially returned.

Unaudited, as of 4/23/24 Sonnet BioTherapeutics | 23

# SB101 Clinical Program: High Level Summary



- ▶ Preliminary PK modeling suggests  $t_{\frac{1}{2}}$  in humans is ~120 hrs
  - □ Compares favorably with rhlL-12 t<sub>1/2</sub> of 5-12 hrs¹
- No Dose Limiting Toxicities to date in 17 patients
- Mostly mild with very few more significant AEs
  - AEs consistent with published literature for IL-12
  - All have been transient in nature
  - AEs are less numerous and less intense after the first dose
- (#800 ng/kg mil.-12
  ng/kg q3w/ks
  | 150 / 540 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 300 | 150 / 3
- The IFNγ response was dose-related, controlled, and prolonged
- 7 of the first 16 patients (44%) have evidence of clinical benefit (SD at 4 months)
- Cytokine results suggest SON-1010 has extended PK, with induction of an II -12 effect without CRS

Atkins (1997) Clin Cancer Res 3: 409-417 Bajetta (1998) Clin Cancer Res 4:75-85 Kenney (2024) Front Imm 15:1362775

As of 4/23/24

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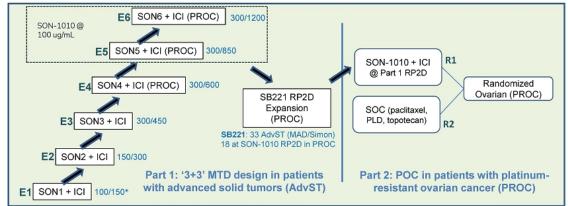
### SB221: MTD/RP2D ± ICI Proof of Concept

Update as of 3/27/24









\* Proposed SON-1010 ng/kg desensitizing dose / SON-1010 ng/kg maintenance dose.

NCT05756907

#### Primary Inclusion / Exclusion Criteria

- Part 1 (N=30-51): Advanced solid tumors→PROC; Part 2 (N=80, Interim @ 32 events): Must have PROC, defined as ovarian cancer recurrence within 6 months following the last dose of a platinum-containing regimen, and <u>can enroll at any time</u> after 1<sup>st</sup> recurrence and a bevacizumab regimen ± mirvetuxemab. Tumor types include epithelial, fallopian tube, or 1° peritoneal carcinoma. Refractory patients, defined as disease that failed to achieve at least a PR to a platinum-containing regimen (i.e., SD or PD), are eligible, provided that outcome was to a 2<sup>nd</sup> line or later repeated platinum regimen (not 1<sup>st</sup> line).
- Histologic documentation of diagnosis of carcinoma is required in Part 2 and the following subtypes are eligible: high grade (Grade ≥ 2) epithelial
  adenocarcinomas (i.e. serous, endometrioid, clear cell, mucinous, poorly-differentiated, or mixed [including above subtypes]). Note that synchronous serous or
  endometrioid uterine or fallopian cancers are allowed.
- 3. May have had one or more alternative regimen(s) before this trial.
- 4. Measurable disease by Response Evaluation Criteria in Solid Tumors (RECIST v1.1) or CA125 (>2x ULN)

Gokhale (2014) Exp Hematol Oncol 3:11. Sobah (2021) Front Med 8:727987. Moroney (2020) Clin Cancer Res 26:5631. Moore (2021) J Clin Onc 39:1842.

75

# SON-1010: Clinical Update 2024



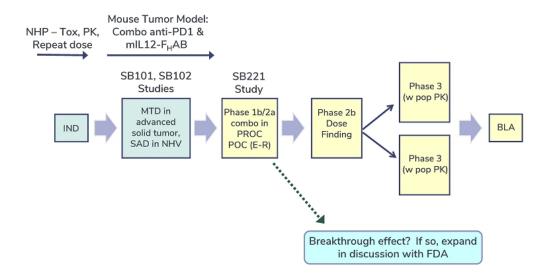
- SON-1010 can be used as monotherapy or combined with an anti-PD-L1; dose escalation has been safe to date
- The Phase 1 studies have together enrolled 61 subjects
  - Patients have received up to 25 cycles of SON-1010 as monotherapy and 10 cycles of SON-1010 with atezolizumab (Tecentriq®) without dose-limiting toxicity at any dose level
  - > Cytokine data reveals about 10-fold extended half-life for SON-1010 compared with rhlL-12 that
    - o Induces prolonged and controlled IFNγ responses, with
    - No evidence of cytokine release syndrome at any dose
- Comparison of PK in healthy volunteers vs. cancer patients suggests target-mediated drug disposition (TMDD) causing retention of SON-1010 in the TME, as designed
- ▶ The SON-1010 dose target has been increased to 1200 ng/kg (the molar equivalent of 800 ng/kg rhlL-12) to help convert 'cold' tumors to 'hot', which can enhance PD-L1 expression and immune activity in tumors
- Clinical benefit (SD at 4 months) was seen in 35% of evaluable patients (8/23) with advanced solid tumors

Atkins (1997) Clin Cancer Res 3: 409-417 Bajetta (1998) Clin Cancer Res 4:75-85 Kenney (2024) Front Imm 15:1362775

### SON-1010: Proposed Development Pathway

Core Safety and Efficacy Studies





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#### SON-1010 in Combination with atezolizumab (Tecentrig®)

- ▶ SB221 Study: Collaboration with Roche/Genentech¹
- Phase 1b/2a adaptive design study to assess the safety, tolerability, PK/PD, and POC of SON-1010 in combination with atezolizumab in patients with platinum-resistant ovarian cancer (PROC)<sup>2</sup>

#### Part 1

- Dose escalation of SON-1010 with fixed dose atezolizumab
- Expand at RP2D in PROC
- Designed to show statistically significant clinical effect
- SB101 safety data enables SB221 dose escalation to 1200 ng/kg

#### Part 2

- Randomized comparison of SON-1010 as combination with atezolizumab vs. SOC
- Designed to show proof-of-concept in PROC

1 Sonnet PR, 9 Jan 2023, 14May2024 2 https://clinicaltrials.gov/ct2/show/NCT05756907

### SON-1010 EXECUTIVE SUMMARY



- Next Generation Oncology Platform (F<sub>H</sub>AB)
  - Confers both tumor targeting and enhanced pharmacokinetics (PK)
  - ☐ Fully human protein sequence, and thus, no predicted immunogenicity
- First immune activator with tumor-targeting functions on a proprietary F<sub>H</sub>AB platform
- Encouraging preclinical data in a cancer model
  - Tumor growth inhibition, associated with the induction of IFNγ (i.e., potentially better efficacy with lower dosing), in the "immunologically cold" B16F10 melanoma model, with a 30-fold increase in therapeutic index vs. wild-type IL-12
- GLP toxicology data
  - ☐ Up to 50x the human dose is safe in monkeys with NO Cytokine Release Syndrome
- Clinical data experience for IL12-F<sub>H</sub>AB
  - ☐ Normal healthy volunteer study half-life was significantly enhanced nearly 10-fold compared to historical rIL-12
  - Cancer patient study demonstrates transient, mild-to-moderate toxicity with NO cytokine release syndrome
    - PK profile suggests direct targeting of tumor tissue, consistent with FHAB construct design
    - ☐ Preliminary clinical benefit in 35% of patients with advanced solid tumors
- Broad, global intellectual property, including composition of matter, indications and manufacturing.
- Pipeline includes first-in-class bifunctional oncology products: SON-1210 and SON-1411
  - Agreement with Janssen for the evaluation of three Sonnet product candidates
  - □ Collaboration with Roche for clinical evaluation of SON-1010 with atezolizumab (Tecentriq®) in ovarian cancer

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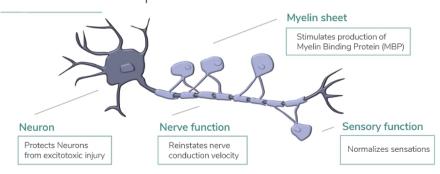
SON-080 (LOW-DOSE IL-6)

CHEMOTHERAPY-INDUCED
PERIPHERAL NEUROPATHY AND
DIABETIC PERIPHERAL NEUROPATHY

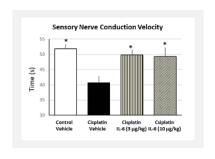


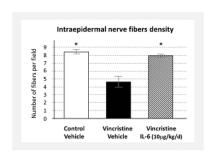


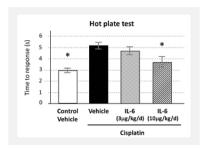
# IL-6 Is Neurotrophic



**Epidermal Innervation** 







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# IL-6: Safe and Well Tolerated at the Target Dose



#### Phase I / II Clinical Data

CONDITION	Thrombocytopenia			
PATIENT	n = 213; all types also including Grade III/IV cancer			
STUDIES	10 independent Phase I/II studies			
CO-TREATMENT	Diverse antineoplastic therapies			
DOSES	0.25-32 μg/kg/day, or 5-20 μg/kg/TIW SC			
DURATION	Up to 10 weeks			

SIDE EFFECT PROFILE	Similar AEs and SAEs to controls, e.g. fever and rigor, headache, vomiting (at target dose range)  No exacerbation of pain or neuropathy were observed after IL-6 administration
SAFETY WINDOW	MTD = 5μg/kg/day or 10μg/kg/TIW  Doses below 2.5 μg/kg/day were well tolerated  Sonnet target dose will be 0.2 – 0.8 μg/kg/TIW, 50 times below the estimated MTD

#### Corporate Summary

#### Immune Oncology

Immune stimulation using a proprietary Fully Human Albumin Binding ( $F_HAB$ ) platform to target the tumor microenvironment

#### Safety

Single dose of SON-1010 shown to be safe and well tolerated in healthy volunteers.

Multiple doses of SON-1010 shown to be safe with early clinical benefit in patients with solid tumors.

#### Demonstrated Activity in Clinical Studies

- · 10x enhanced half-life compared to rIL-12
- Tumor targeting shown by comparing PK curves with healthy volunteers
- Superior efficacy of cytokines while attached to F<sub>H</sub>AB compared to their naked counterparts in preclinical studies

#### Milestones:



SON-1010: Safety from the Phase 1 monotherapy study, 2H24 SON-1010: Additional safety data from Phase 1b/2a PROC study in combination with atezolizumab, 2H24

SON-1010: Response data from Phase 1 monotherapy study, 1H25  $\,$ 

SON-1010: Other updates from Phase 1b/2a PROC study in

combination with atezolizumab, 1H25

SON-080: Additional data from CIPN study, 2H24

SON-080: Initiate Phase 2 study in DPN, pending the outcome of any partnering activity

SON-1210: Initiate regulatory authorization process, pending the outcome of any partnering activity

#### F<sub>H</sub>AB Pipeline Business Development

Existing material supply agreement with Roche and J&J pipeline evaluation offer licensing expansion opportunities

#### Intellectual Property

PCT and US Patents in prosecution, as well as six provisional patents filed (*i.e.*, potential utility with ADCs, Checkpoint Inhibitors and CAR-Ts; Continuous Intensified Perfusion Manufacturing; Novel Formulations)

US Patent No. 11,028,166, "Albumin Domain Fusion Proteins", Issued June 2021