Seres Therapeutics Overview

SER-109 ECOSPOR III top-line study results

August 10, 2020

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Forward Looking Statements

Some of the statements in this presentation constitute “forward looking statements” under the Private Securities Litigation Reform Act of 1995, including, but not limited to, our development plans, potential approval of SER-109 by the FDA, the potential number of patients who could be treated by SER-109, the ability of SER-109 to transform the treatment of CDI, the potential requirements by the FDA for additional safety data, the promise and potential impact of any of our microbiome therapeutics or clinical trial data, the ability of our clinical trials and resulting data to support approval, the timing of clinical studies, and the potential benefits of Seres’ collaborations. Such statements are subject to important factors, risks and uncertainties, such as those discussed under the caption "Risk Factors" in the Company’s Quarterly Report on Form 10-Q filed on July 28, 2020, and its other filings with the SEC, that may cause actual results to differ materially from those expressed or implied by such forward looking statements. Any forward looking statements included herein represent our views as of today only. We may update these statements, but we disclaim any obligation to do so.

Seres Mission

To transform the lives of patients worldwide with revolutionary microbiome therapeutics

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SER-109 ECOSPOR III Phase 3 Top-line Study Results – Recurrent *C. Difficile* Infection

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SER-109: First Ever Positive Pivotal Study For Targeted Microbiome Therapeutic Candidate

Primary endpoint met with substantial efficacy benefit observed

- Highly stat. sig. reduction in CDI recurrence rate: 11.1%; p<0.001; 30.2% absolute deltaSER-109 vs. 41.3% placebo at 8 weeks
- SER-109 Number Needed to Treat (NNT) was approximately 3

We believe study can serve as efficacy basis for BLA submission

- Relative risk: 0.27 (95% CI=0.15 to 0.51) vs. placebo; superior to 0.833 bar communicated by FDA as threshold of potential for BLA submission with single study

Favorable safety profile observed

- No clinically meaningful imbalance in incidence of AEs between SER-109 and placebo arms
- SER-109 safety profile observed comparable to placebo

- ***Potential to be a first-in-class therapy***
- ***Seres to seek FDA Breakthrough Therapy Designation meeting as soon as possible to discuss path to SER-109 BLA submission***

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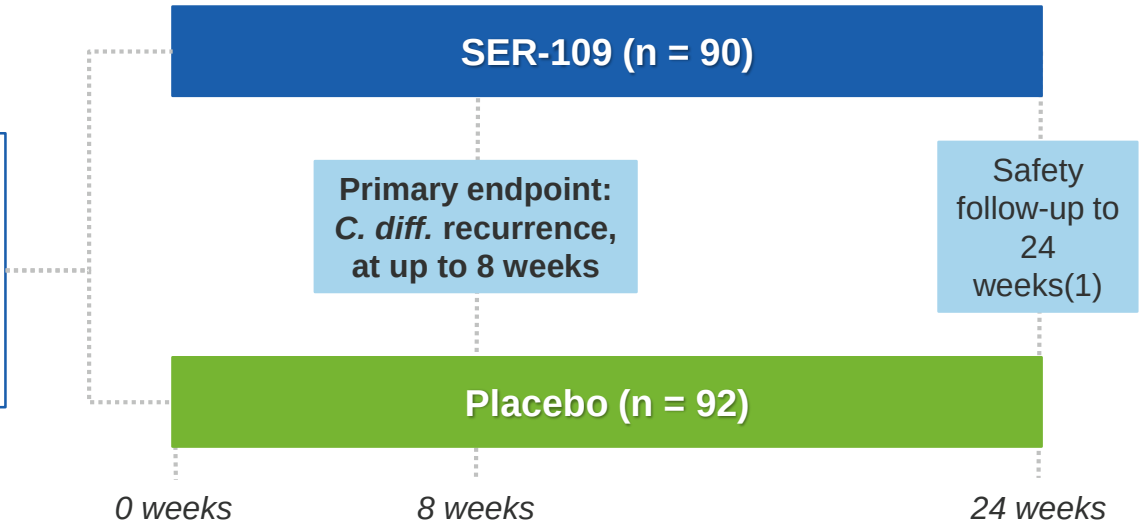
ECOSPOR III Phase 3 Study

- Multiply recurrent *C. difficile* patients (n=182)
- All subjects treated with standard of care antibiotics



Toxin testing to ensure inclusion of subjects with active rCDI, and for accuracy of endpoint

Substantially higher dose vs. Phase 2 designed to result in greater and earlier microbiome restoration

Placebo arm to provide valuable safety and efficacy data that cannot be obtained in open-label trials

(1) 24-Week data has not yet been analyzed.

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SER-109 Phase 3 Topline Efficacy Results Demonstrate Statistically Significant Delta Between SER-109 And Placebo

Primary efficacy endpoint results

	SER-109 (n= 90)	Placebo (n= 92)	RR (95%CI)	p-Value (p1/p2)
	n (%)	n (%)		
Recurrence At 8 Weeks	10 (11.1)	38 (41.3)	0.27 (0.15, 0.51)	<0.001 / <0.001

- Sustained clinical response rate (i.e., percentage of patients who remain free of CDI at 8 weeks): Sustained clinical response in 88.9% of SER-109 subjects vs. 58.7% of subjects in the placebo arm.
- Results across the age and antibiotic strata were similar to the overall top-line study results

Highly statistically significant 30.2% absolute reduction in the rate of CDI recurrence compared to placebo

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ECOSPOR III Safety Results Display Favorable Safety Profile (1/2)

MedDRA Preferred Term	Number (%) of Subjects	
	SER-109 (n= 90)	Placebo (n= 92)
At least one TEAE	83 (92.2)	84 (91.3)
Flatulence	63 (70.0)	70 (76.1)
Fatigue	53 (58.9)	58 (63.0)
Abdominal pain	46 (51.1)	56 (60.9)
Abdominal distension	49 (54.4)	49 (53.3)
Decreased appetite	26 (28.9)	34 (37.0)
Constipation	28 (31.1)	22 (23.9)
Nausea	16 (17.8)	30 (32.6)
Chills	21 (23.3)	22 (23.9)
Diarrhoea	22 (24.4)	20 (21.7)
Vomiting	3 (3.3)	10 (10.9)
C. difficile colitis	1 (1.1)	7 (7.6)
Urinary tract infection	6 (6.7)	1 (1.1)

No treatment-related serious adverse events (SAEs) observed in the active arm

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ECOSPOR III Safety Results Display Favorable Safety Profile (2/2)

Summary of Subjects with Treatment Emergent Adverse Events up to Week 8

	SER-109 (n= 90) n (%)*	Placebo (n= 92) n (%)*
Any TEAE	83 (92.2)	84 (91.3)
TEAEs Resulting in Premature Discontinuation through Week 8	0	2 (2.2)
Treatment Related/Possibly Related TEAEs	46 (51.1)	48 (52.2)
Treatment Emergent AESIs	1 (1.1)	1 (1.1)
Serious TEAEs	7 (7.8)	15 (16.3)
Deaths (see footnote)	2 (2.2)	0
Serious TEAEs or Deaths Related or Possibly Related to Drug	0	0

*n (%): # and percentage of subjects

3 deaths were reported on the study (SER-109 treatment arm). One subject died within first 8 weeks; two subjects had TEAEs with onset dates within first 8 weeks which proved fatal, counted above. 1 TEAE leading to death occurred post Week 8. Events were progression of glioblastoma,; fall with subdural hematoma on anticoagulation; afib w/ RVR, CHF and presumed sepsis. All evaluated as unrelated by investigators.

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Patient Demographics

Characteristic	SER-109 (n =90)	Placebo (n =92)	Total (n=182)
Age (yrs) mean ± SD	65.8 ± 16.39	65.3 ± 16.75	65.5 ± 16.53
< 65	40 (44.4)	39 (42.4)	79 (43.4)
>= 65	50 (55.6)	53 (57.6)	103 (56.6)
Prior Antibiotic Regimen, n (%)			
vancomycin	65 (72.2)	68 (73.9)	133 (73.1)
fidaxomicin	25 (27.8)	24 (26.1)	49 (26.9)
Number of Previous CDI Episodes, n (%)			
2	51 (56.7)	59 (64.1)	110 (60.4)
3	26 (28.9)	22 (23.9)	48 (26.4)
4	5 (5.6)	6 (6.5)	11 (6.0)
>= 5	7 (7.8)	5 (5.4)	12 (6.6)
Missing	1 (1.1)	0	1 (0.5)
Sex, n (%)			
Male	28 (31.1)	45 (48.9)	73 (40.1)
Female	62 (68.9)	47 (51.1)	109 (59.9)
Race, n (%)			
White	83 (92.2)	87 (94.6)	170 (93.4)
Black	4 (4.4)	4 (4.3)	8 (4.4)
Asian	1 (1.1)	0 (0.0)	1 (0.5)
Other	2 (2.2)	1 (1.1)	3 (1.6)
Ethnicity, n (%)			
Hispanic	6 (6.7)	5 (5.4)	11 (6.0)
Non-Hispanic	84 (93.3)	87 (94.6)	171 (94.0)
Weight (kg) mean ± SD	74.27 ± 21.994	76.39 ± 21.527	75.34 ± 21.725
Height (cm) mean ± SD	165.93 ± 11.244	168.73 ± 10.078	167.34 ± 10.736

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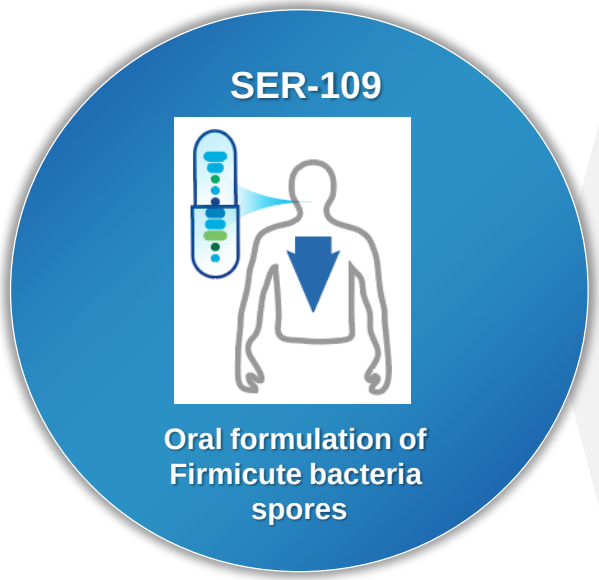
SER-109: Investigational, Spore-based Therapeutic Designed To Break The Cycle Of Recurrent *C. Difficile* Infection



Strong clinical & scientific data

- Significant reduction in CDI recurrence rate observed in Phase 3 trial
- Spore-forming Firmicute bacteria prevent *C. difficile* germination and growth

Oral formulation

- Spores are resistant to gastric acid, facilitating oral delivery to gastrointestinal tract

Favorable safety profile

- Favorable tolerability & safety profile with no clinically-meaningful imbalance in adverse events
- Spore purification mitigates risk of transmission of known and unknown infectious agents

FDA regulatory designations

- Breakthrough designation
- Orphan drug status

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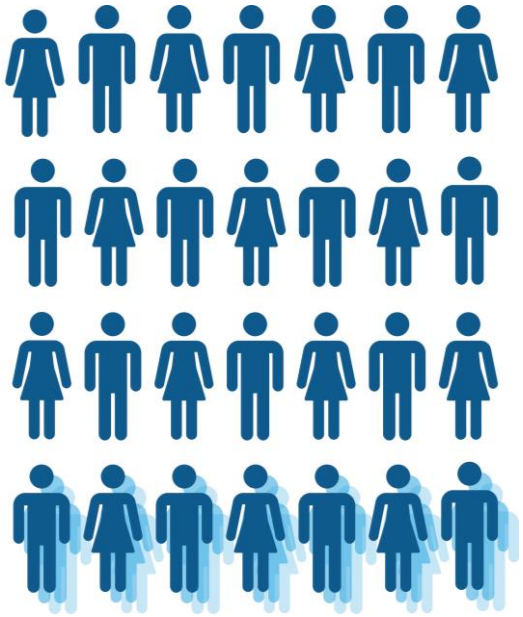
Substantial Recurrent *C. Difficile* Infection Market Opportunity

Infectious disease resulting in diarrhea, abdominal pain, fever and nausea

Leading cause of hospital-acquired infection in the U.S.

- ~ 453K cases of primary CDI within the U.S. each year
- ~ 170K episodes per year (100K episodes of first recurrence; ~ 73K episodes of 2+ recurrences)
- Estimated ~ $5B in healthcare burden each year



25% of primary *C. difficile* recur

Over **20,000 deaths** per year

Preparations for commercialization are underway

Source: * Desai et al., Epidemiological and economic burden of *Clostridium difficile* in the United States: estimates from a modeling approach, BMC Infectious Diseases (2016) 16:303; Guh AY et al. NEJM 2020

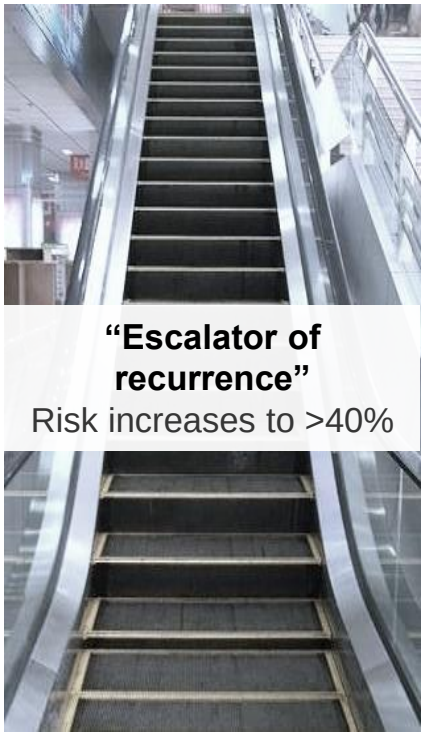
Current CDI Treatment Options Are Suboptimal

Primary *C. difficile* infection:

- Recurrence in 25% of patients within 1 to 3 weeks of antibiotic completion
- Bezlotoxumab recommended only for those at high-risk for recurrence

Recurrent infection:

- Retreatment with same drugs: lower efficacy observed
- Unapproved fecal microbiota transplant (FMT):
  - Unproven efficacy due to lack of controlled clinical trials
  - Safety risks including transmission of infectious agents
- In July 2020, the largest U.S. provider of FMT quarantined supply, and halted shipments



"Escalator of recurrence"
Risk increases to >40%

None of these approaches address disease pathogenesis

McDonald *Clin Infect Dis* 2018; Wilcox NEJM 2017; Louie *NEJM* 2011; Hengel *Open Forum Infect Dis* 2020; Hota *Clin Infect Dis* 2017.

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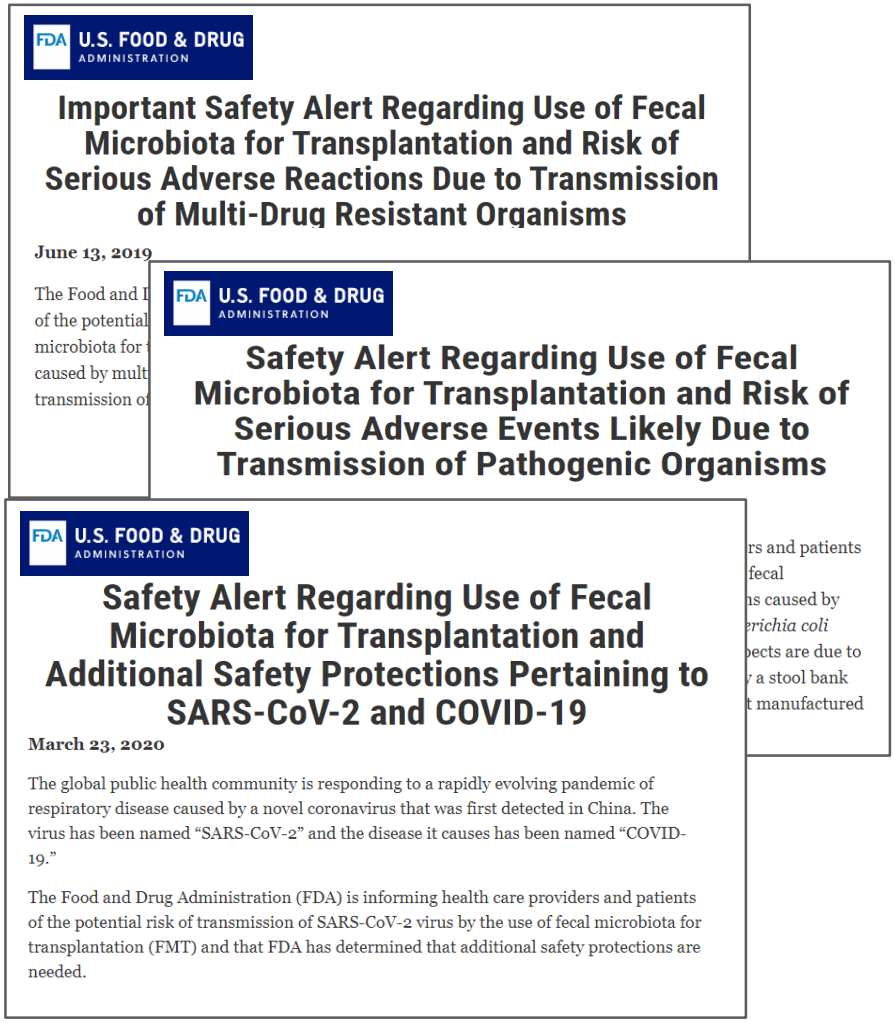
FMT Safety Concerns Highlight The Need For Improved, FDA-approved Treatment Options For *C. Difficile* Infection

- In contrast to FMT, SER-109 is comprised of a highly purified consortia of spore-based bacteria manufactured under GMP conditions to ensure product quality and consistency
- Unique manufacturing process to inactivate potential pathogens
- Process inactivates many emerging potential pathogens where diagnostic assays may not yet be widely available, such as SARS-CoV-2



FDA U.S. FOOD & DRUG ADMINISTRATION

Important Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Risk of Serious Adverse Reactions Due to Transmission of Multi-Drug Resistant Organisms

June 13, 2019

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FDA U.S. FOOD & DRUG ADMINISTRATION

Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Risk of Serious Adverse Events Likely Due to Transmission of Pathogenic Organisms

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FDA U.S. FOOD & DRUG ADMINISTRATION

Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Additional Safety Protections Pertaining to SARS-CoV-2 and COVID-19

March 23, 2020

The global public health community is responding to a rapidly evolving pandemic of respiratory disease caused by a novel coronavirus that was first detected in China. The virus has been named "SARS-CoV-2" and the disease it causes has been named "COVID-19."

The Food and Drug Administration (FDA) is informing health care providers and patients of the potential risk of transmission of SARS-CoV-2 virus by the use of fecal microbiota for transplantation (FMT) and that FDA has determined that additional safety protections are needed.

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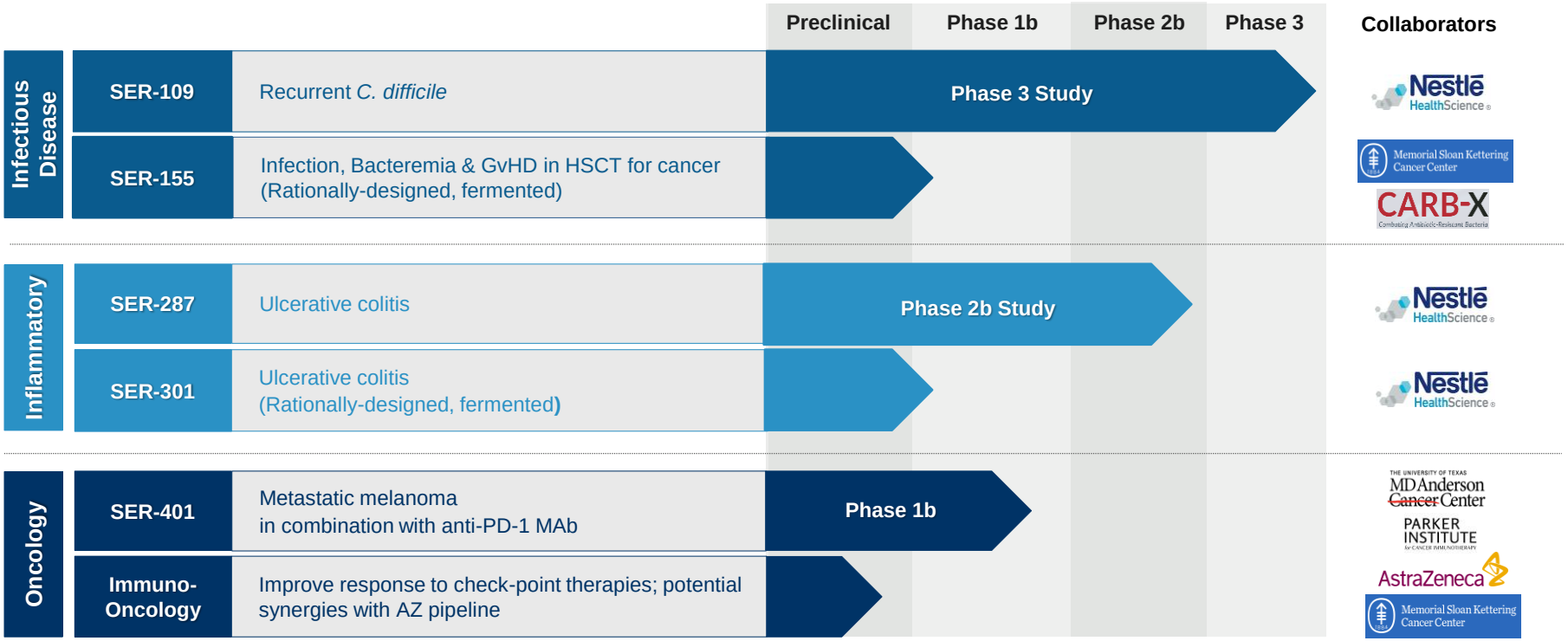
Broad Opportunities For Microbiome Therapeutic Candidates



1. Collaboration with Nestlé Health Science, announced Jan. 11, 2016, regarding *C. difficile* and IBD programs for markets outside of North America
2. Collaboration with University of Texas MD Anderson Cancer Center and the Parker Institute for Cancer Immunotherapy, announced Nov. 14, 2017, regarding evaluation of microbiome therapies to improve the outcomes of cancer patients treated with immunotherapy. The Parker Institute is the IND application holder for SER-401.
3. Collaboration with AstraZeneca, announced Mar. 11, 2019, regarding advancing mechanistic understanding of the microbiome in augmenting the efficacy of cancer immunotherapy, including potential synergy with AstraZeneca compounds.

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SER-109 Data Validate Our Microbiome Therapeutic Approach, Presenting Opportunity In Multiple Additional Areas

- Deep understanding of the broad role of the microbiome in health:
  - Resistance to pathogens
  - Gut & systemic inflammation
  - Innate & adaptive immunity
  - Regulation of metabolism
- Novel field-leading drug discovery and development platform
- Option to pursue multiple diseases with high unmet need

Highly productive R&D engine pursing multiple promising potential opportunities

- **Infectious (e.g. Antibiotic resistant infections)**
- **Inflammatory (e.g. Crohn's, RA)**
- **Oncology (e.g. tumor progression & bacteremia)**
- **Immune modulation & autoimmune disease**
- **Metabolic & Cardiovascular (e.g. NASH)**
- **Neurologic & CNS Disease**

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SER-287 and Ulcerative Colitis

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Ulcerative Colitis Overview

- Serious chronic condition characterized by inflammation of the colon and rectum resulting in abdominal pain, bowel urgency and diarrhea
- Significant need for improved therapies - Many drugs are immunosuppressive, limiting use to more severe patients

~700K in the United States

Only ~1/3 achieve remission

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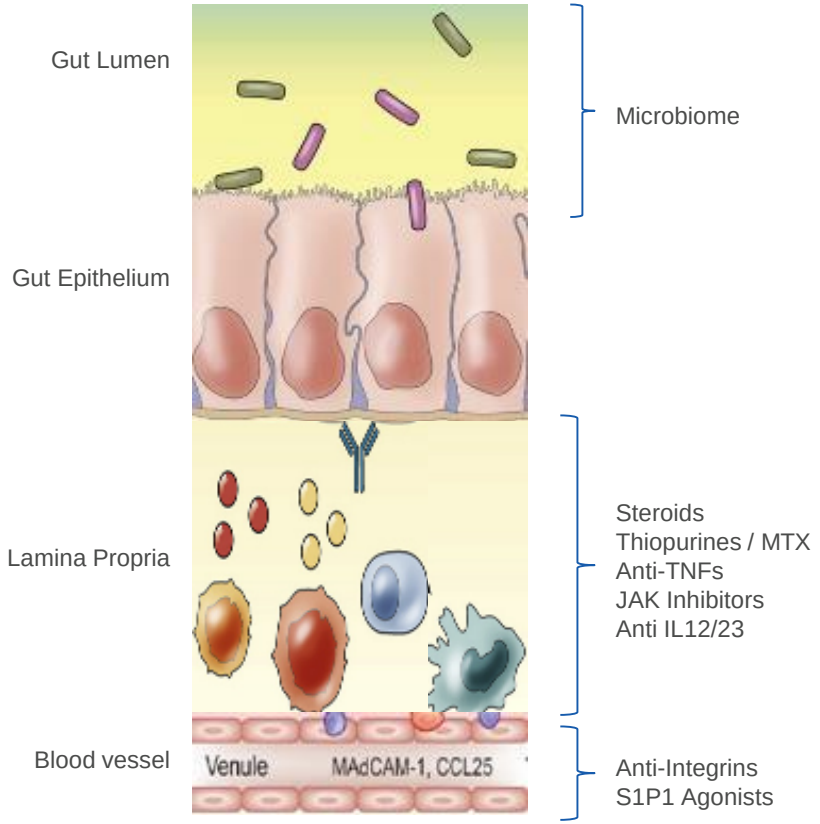
The Dysbiotic Microbiome May Be A Trigger Of Inflammation In Ulcerative Colitis

Microbiome therapeutics may drive therapeutic benefit

- May address drivers of inflammation, barrier integrity, innate immune activation, and adaptive immune education and cell trafficking
- Effector molecules may include short chain fatty acids, secondary bile acids, tryptophan metabolites, and TLR ligands

Microbial consortia can likely target multiple pathways simultaneously

Opportunity to develop both first-line and combination therapies



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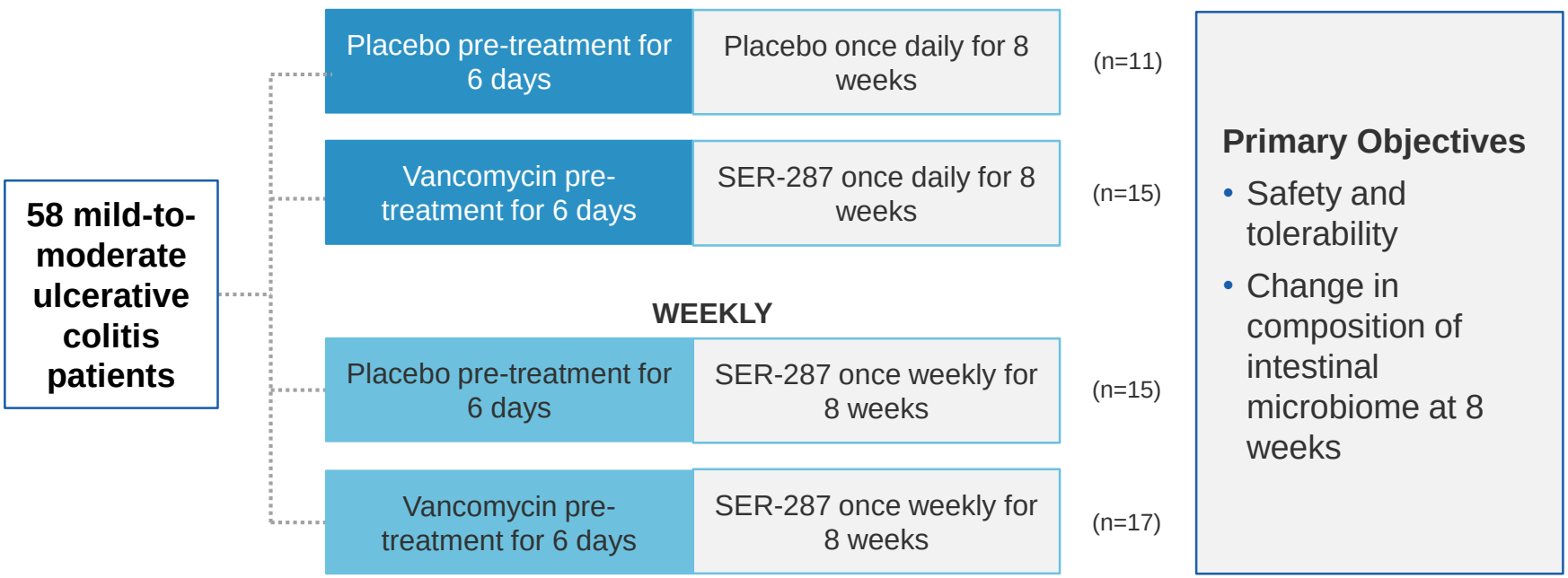
SER-287 Phase 1b Ulcerative Colitis Study



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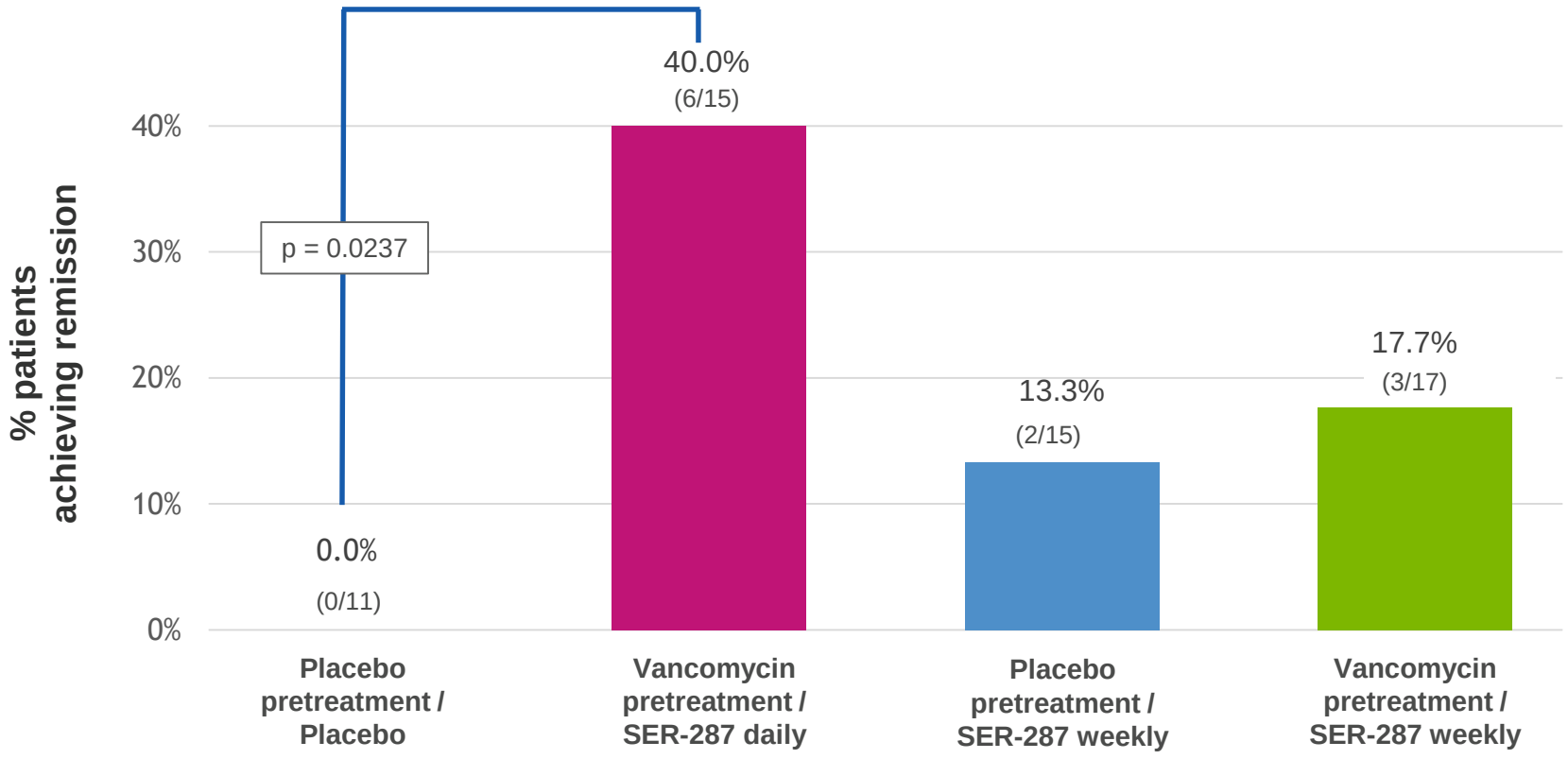
Phase 1b Study Results – Statistically Significant Clinical Remission Improvement Observed In Vanco/SER-287 Daily Treatment Arm



Remission = Total Modified Mayo score ≤ 2 AND endoscopic subscore ≤ 1
Note: Missing data treated as failure; statistical significance not found in SER-287 weekly arms

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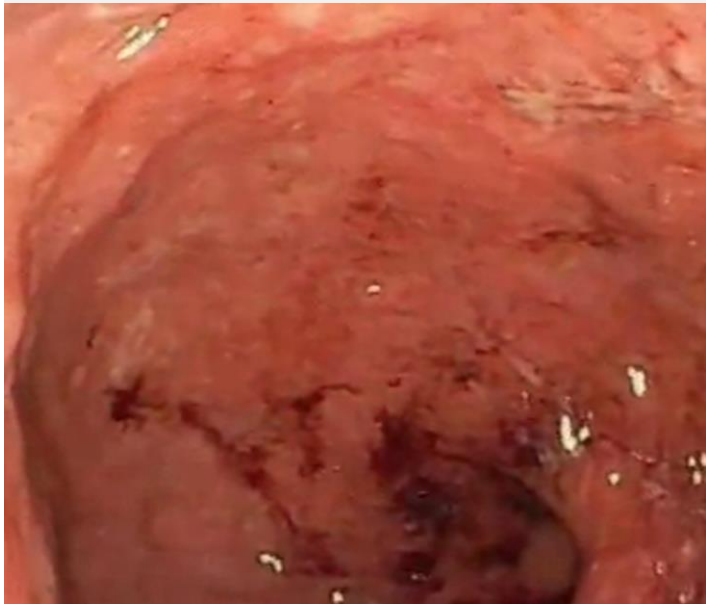
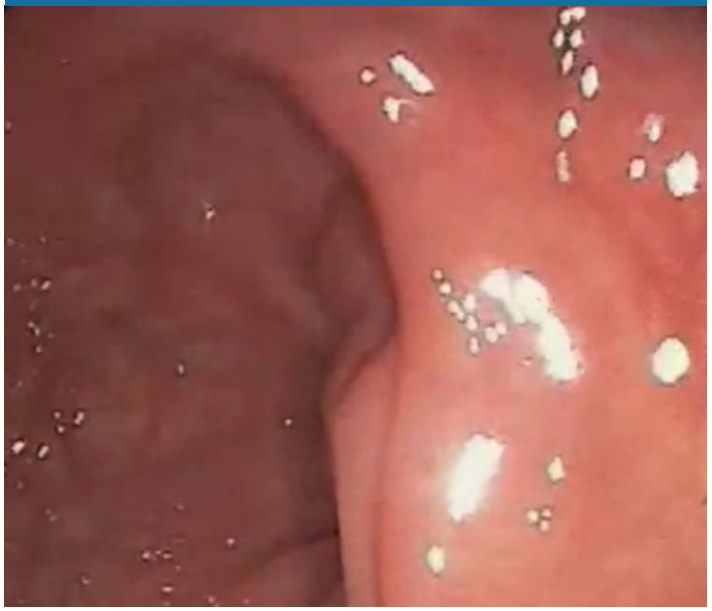
Illustrative Endoscopy Improvement — Vanco/SER-287 Daily Treatment

Pre-treatment endoscopy showing the sigmoid colon with spontaneous bleeding and ulceration



Post-treatment day 64 endoscopy



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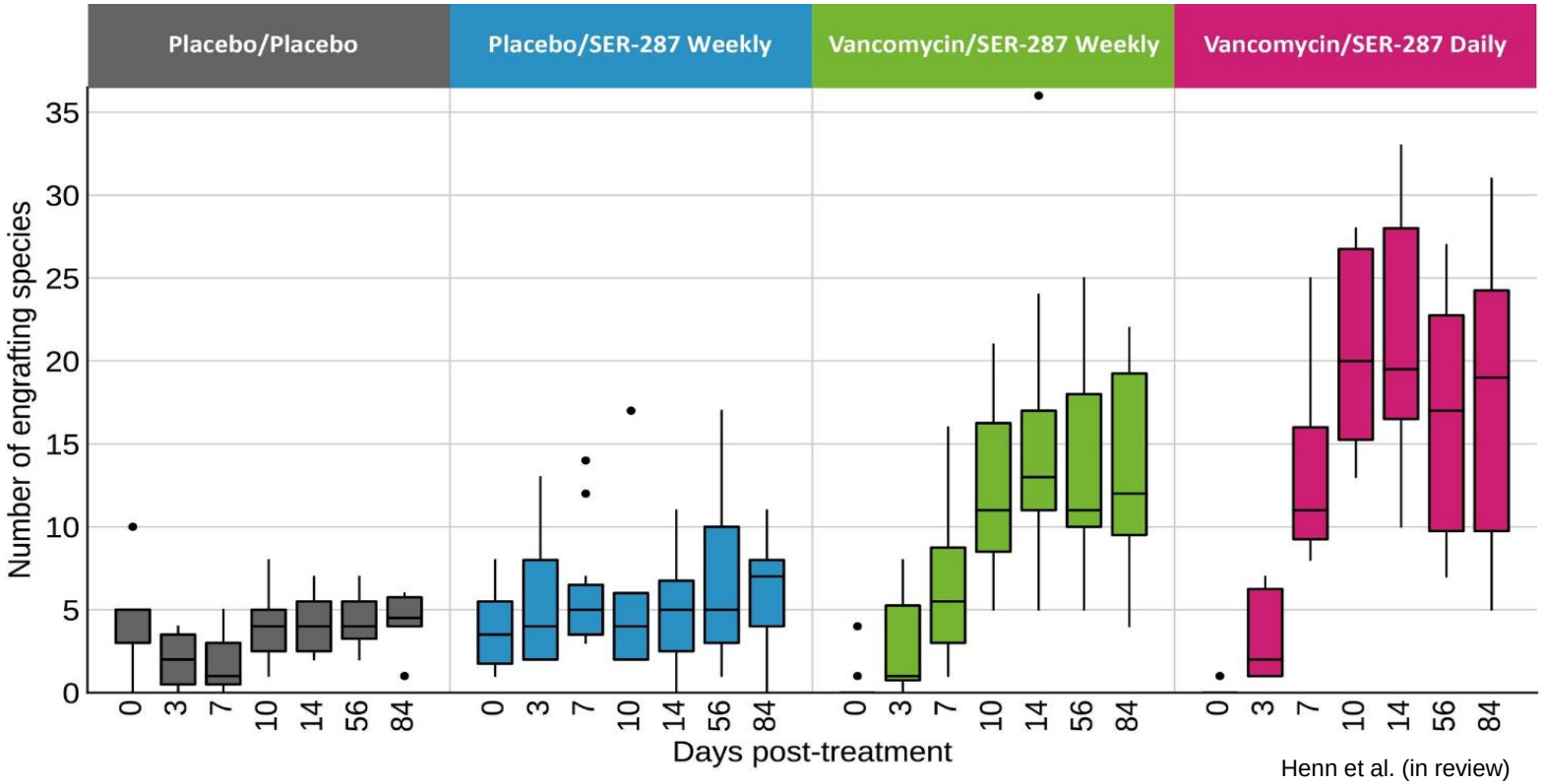
SER-287 Phase 1b Safety Results Show Safety Profile Comparable To Placebo

- SER-287 daily arm demonstrated a similar safety profile to placebo
- No serious drug-related adverse events
- Reduced gastrointestinal adverse events provide an independent assessment of efficacy as the GI adverse events likely reflect ulcerative colitis disease activity
  - SER-287 daily arm GI AEs: 2/15 (13.3%) vs. placebo arm: 5/11 (45.5%)

Phase 1b Study Results – SER-287 Bacteria Engrafted In Subjects And Was Durable To Four Weeks After Dosing



Henn et al. (in review)

- Significant engraftment observed starting one week post-dosing
- Engraftment was significantly higher in arms with vancomycin pre-conditioning
- Engraftment in vancomycin arms was dose-dependent; significantly greater in daily dosing arm (arm with greatest efficacy)

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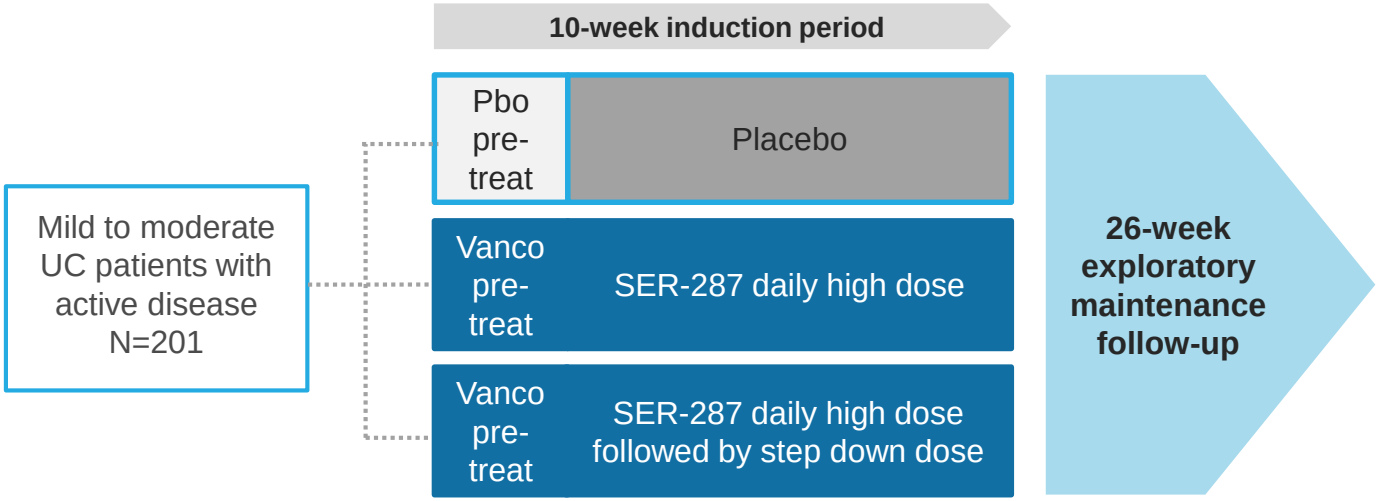
Ongoing SER-287 ECO-RESET Phase 2b study in patients with mild-to-moderate active ulcerative colitis



- FDA Fast Track designation
- FDA feedback: Phase 2b study results, in conjunction with data from a second pivotal study, could support BLA submission
- As of May 1, 2020, ~60% enrolled based on 201 patient target size
    - Seres is evaluating potential SER-287 study design modifications with the goal of obtaining high quality, clinically interpretable study results

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Earlier stage development programs: SER-401, SER-301, SER-155

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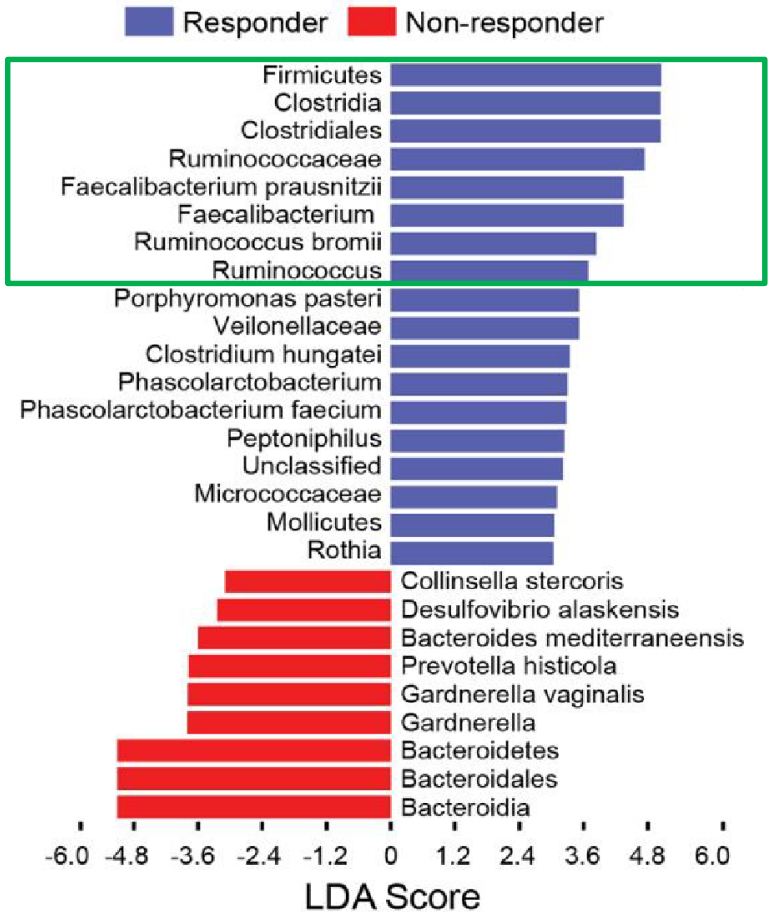
Immuno-oncology - Microbiome Signature In Melanoma Patient Responder To Anti-pd-1

- SER-401 composition driven by bacteria consistent with responder profile
- Comprised entirely of spore formers; leverages Seres' deep expertise in biology and manufacturing



Gopalakrishnan et al, Science 2017

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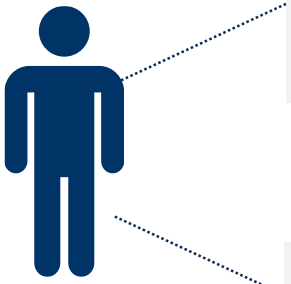
Ongoing SER-401 Phase 1b Study



Patients with metastatic melanoma treated with anti-PD-1 (nivolumab)

SER-401; biologically sourced product to match microbiome signature of anti-PD-1 responders (n=20)

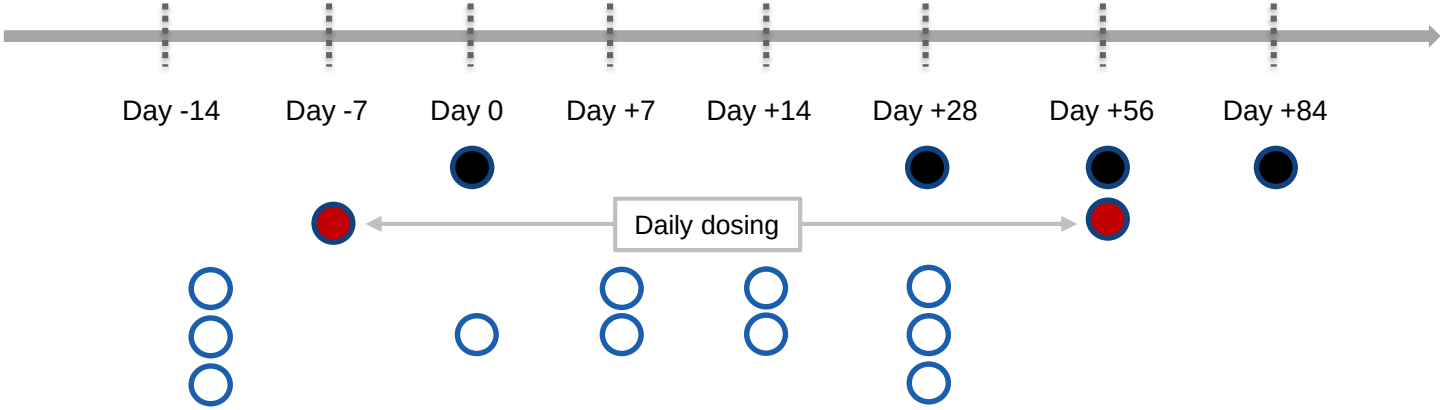
Placebo (n=10)

Study Objectives

Primary endpoint = safety and tolerability

All patients = CT scans with RECIST week 12

Secondary endpoints = engraftment, response and correlative studies (immune correlates in blood and tumor, metabolites)



SER-401 / Placebo

Biospecimens: Blood, Stool, Biopsy

Additional study arm may be added including fecal microbiota obtained from responders

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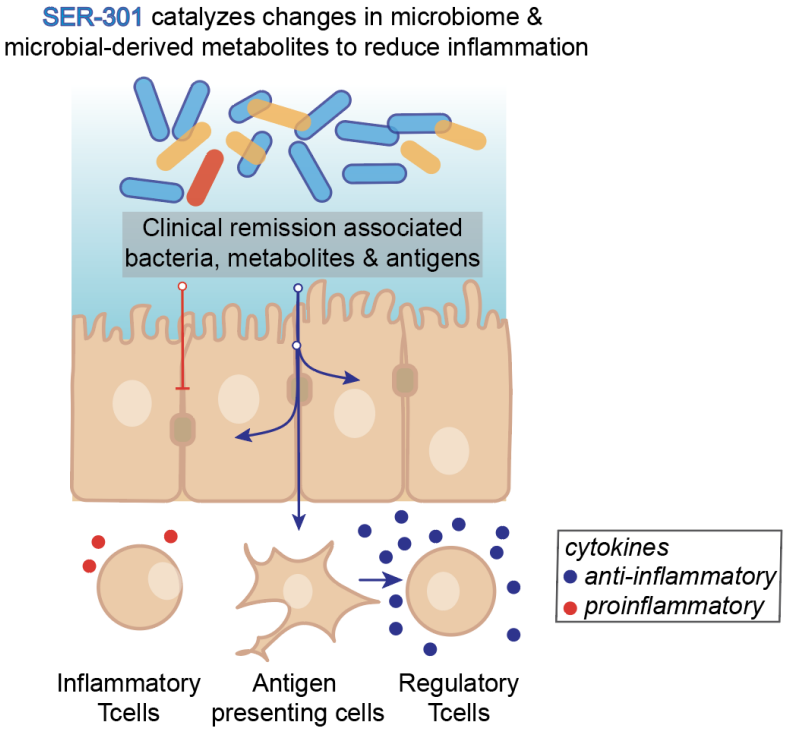
SER-301: Next-generation, Rationally Designed Fermented Microbiome Therapeutic Candidate For Ulcerative Colitis

- Reduce induction of pro-inflammatory activity
- Improve epithelial barrier integrity & TNF-α driven inflammation in IECs
- Modulate UC-relevant anti-inflammatory, innate & adaptive immune pathways



Activities to initiate clinical development ongoing; Human Research Ethics Committee approval in Australia

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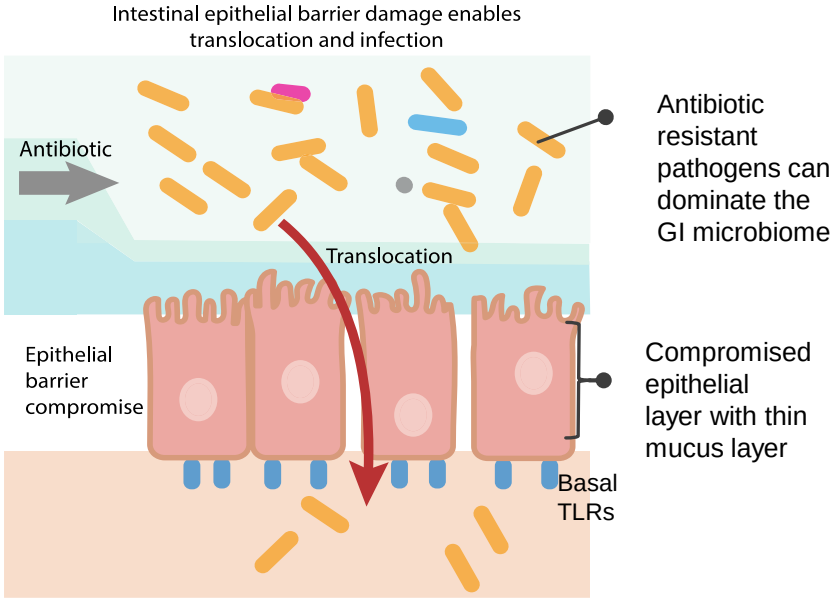
SER-155: Rationally-designed, fermented microbiome therapeutic candidate for infection, bacteremia & GvHD

- Decrease infection by antibiotic resistant bacteria in the gastrointestinal tract that lead to bacteremia
- Enhance epithelial barrier integrity to prevent bacterial translocation to the blood stream
- Modulate local and systemic immunomodulatory responses to decrease graft versus host disease
- Collaboration with:

Memorial Sloan Kettering Cancer Center

CARB-X
Combating Antibiotic-Resistant Bacteria

Catalyzes changes in the microbiome & microbe-derived metabolites to prevent bacteremia



- ***Lead candidate nominated***
- ***U.S. regulatory submission in process***

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Differentiated CMC Capabilities

Seres in-house GMP manufacturing and quality control capabilities

Cell banking & inoculum

Drug substance

Drug product

Quality control

- Specialized, dedicated facilities addressing FDA and EMA guidance on manufacturing with spore-forming organisms
- Integrated manufacturing capabilities including Quality Control and Quality Assurance for Seres' products

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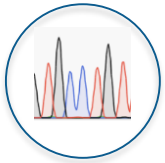
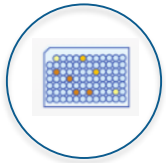
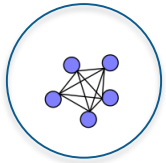
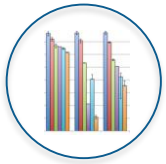
In-house Research Engine Enable Efficient Early Discovery Through Manufacturing

Disease Target Identification	Hit-to-Lead Identification	Lead Optimization & Bioprocess	End-to-End GMP Manufacturing
Microbiome Biomarker Discovery	**Consortia Design**	**Pharmacological Properties Validation**	**Orally-delivered formulation**
 Clinical sample biorepository	 Broad strain library & culturing know-how	 Ex vivo & in vivo disease modeling	 Donor-derived & multi-strain fermentation
 Proprietary genomic & metabolomic analytics	 Genomic & host function screening	 Advanced fermentation & drug formulations	 Anaerobic, spore & lyophilized technologies
 World-class collaborations	 In-silico drug design for functional targets		 Late clinical stage drug release assays

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Broad IP portfolio and potential for regulatory exclusivity

- Have obtained issued patents in the US, demonstrating that rationally designed ecologies of spores and microbes are patentable
- Portfolio includes composition of matter and method claims, including option to license foundational IP from MD Anderson related to the use of bacteria in combination with checkpoint inhibitors. Portfolio also includes exclusive licenses to Memorial Sloan Kettering Cancer Center IP related to use of bacteria to treat gastrointestinal disorders and cancer relapse.
- Issued claims related to SER-109/ C. difficile & SER-287 / ulcerative colitis lead candidates extend through 2033
- 13 Issued US Patents obtained

21	Families of Applications
15	Nationalized
1	Pending Provisionals

POTENTIAL BIOSIMILAR REGULATORY EXCLUSIVITY

12 years for new biological composition

10 years for new drug

SERES THERAPEUTICS™

Seres: The Leading Microbiome Company

Only Microbiome Company With Clinically Validated Platform

Platform	Scientifically-based, targeted discovery platform
SER-109	Positive ECOSPOR III Phase 3 study results expected to serve as efficacy basis to support BLA; plan to meet with FDA to discuss filing
Pipeline	• SER-287 for Ulcerative colitis in Phase 2b • SER-401 for Metastatic melanoma in Phase 1b • Two additional rationally-designed fermented composition programs (SER-301 & SER-155) approaching clinic
R&D	Multiple, earlier-stage programs under consideration as new development opportunities
Poised For Growth	Plans to capitalize on broad, foundational portfolio of IP and know-how

SERES THERAPEUTICS™