

**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): August 10, 2020**

**SERES THERAPEUTICS, INC.**  
(Exact name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**001-37465**  
(Commission  
File Number)

**27-4326290**  
(IRS Employer  
Identification No.)

**200 Sidney Street  
Cambridge, MA**  
(Address of Principal Executive Offices)

**02139**  
(Zip Code)

**Registrant's Telephone Number, Including Area Code: (617) 945-9626**

**Not Applicable**  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-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
<b>Common stock, par value \$0.001 per share</b>	<b>MCRB</b>	<b>The Nasdaq Global Select Market</b>

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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 pursuant to Section 13(a) of the Exchange Act.

**Item 7.01. Regulation FD Disclosure.**

On August 10, 2020, Seres Therapeutics, Inc. (the “Company”) posted an updated corporate slide presentation in the “Investors and News” portion of its website at [www.serestherapeutics.com](http://www.serestherapeutics.com). A copy of the slide presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K (the “Current Report”).

The information in Item 7.01 of this Current Report, including Exhibit 99.1 attached hereto, is intended to be furnished and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended (the “Securities Act”), or the Exchange Act, except as expressly set forth by specific reference in such filing. The Company undertakes no obligation to update, supplement or amend the materials attached hereto as Exhibit 99.1.

**Item 8.01. Other Events.**

On August 10, 2020, the Company announced positive topline results from the pivotal Phase 3 ECOSPOR III study evaluating its investigational oral microbiome therapeutic SER-109 for recurrent *Clostridioides difficile* infection (formerly *Clostridium difficile* infection) (“CDI”). There are approximately 170,000 U.S. patients annually with recurrent CDI. The study showed that SER-109 administration resulted in a statistically significant absolute decrease of 30.2% in the proportion of patients who experienced a recurrence in CDI within eight weeks of administration versus placebo, the study’s primary endpoint. 11.1% of patients administered SER-109 experienced a CDI recurrence, versus 41.3% of placebo patients. The study’s efficacy results exceeded the statistical threshold previously provided in consultation with the U.S. Food and Drug Administration (the “FDA”) that could allow this single clinical study to fulfill efficacy requirements for a biologics license application (“BLA”). The SER-109 safety results were favorable, with an adverse event profile comparable to placebo.

The ECOSPOR III study is a multicenter, randomized, placebo-controlled study that enrolled 182 patients with multiply recurrent CDI. Patients were randomized 1:1 to receive either SER-109 or placebo, after standard of care antibiotic treatment. SER-109 or placebo was administered orally for three consecutive days. All patients were required to have a positive *C. difficile* toxin diagnostic test both at study entry and in the case of suspected recurrence to ensure the selection of individuals with true disease and to confirm the accuracy of the primary endpoint. The primary efficacy endpoint of ECOSPOR III was the proportion of patients with recurrent CDI at up to eight weeks following administration of SER-109 or placebo. As a secondary endpoint, patients are evaluated for CDI recurrence through 24 weeks post-treatment, and the Company plans to present those results at a future date.

SER-109 met the study’s primary endpoint with a significantly lower recurrence rate of 11.1% in SER-109 patients versus 41.3% in placebo patients at 8 weeks ( $p < 0.001$ ). Patients administered SER-109 experienced a 30.2% lower rate of recurrence, on an absolute basis, compared to placebo. The SER-109 treatment arm relative risk was 0.27 (95% CI=0.15 to 0.51) versus placebo. The ECOSPOR III recurrence rates translate into a sustained clinical response rate of 88.9% versus 58.7% with SER-109 and placebo, respectively. The SER-109 Number Needed to Treat was approximately 3.

In prior discussions, the FDA communicated that demonstration of a statistically very persuasive efficacy finding in the ECOSPOR III primary endpoint, defined as demonstrating a 95% upper confidence level of relative risk lower than 0.833, could support a BLA submission on the basis of this single study. The results of ECOSPOR III demonstrated a SER-109 relative risk of 0.27 (95% CI=0.15 to 0.51) compared to placebo. As a result, the Company believes that this study should support the efficacy basis for a BLA submission. SER-109 has obtained FDA Breakthrough Drug and Orphan Drug Designations.

SER-109 was well-tolerated, with no treatment-related serious adverse events observed in the active arm, and an adverse event (“AE”) profile similar to placebo. The overall incidence of patients who experienced AEs during the 8-week study period was similar between SER-109 and placebo arms. The most commonly observed treatment-related AEs were flatulence, abdominal distention, and abdominal pain, which were generally mild to moderate in nature, and these were observed at a similar rate in both the SER-109 and placebo arms.

A SER-109 open-label study is ongoing at selected clinical sites that participated in the ECOSPOR III study and the Company may initiate the program at additional clinical sites. The FDA has previously indicated that SER-109 administration to at least 300 patients, consistent with standard FDA guidance, would be required to support a BLA submission. The ongoing SER-109 open label study is continuing to contribute to the SER-109 safety database.

The Company plans to immediately request a Breakthrough Therapy Designation meeting with the FDA to discuss the requirements to submit a BLA seeking regulatory approval of SER-109. As of August 10, 2020, the Company had a safety database with the SER-109 Phase 3 dose of approximately 105 subjects. The Company anticipates adding additional subjects in the open-label portion of the study and it expects to include data from these subjects in the safety data portion of the BLA. Subject to discussions with the FDA, the Company expects to submit a BLA next year. The Company believes that enrollment in the open label portion of the study going forward will accelerate given the strength of the Phase 3 data and the limited availability of alternative treatment options. The Company plans to discuss with the FDA at its upcoming Breakthrough Therapy Designation meeting whether any additional safety data may be required in the context of the favorable safety profile it has observed in clinical studies. Based on what the Company learns in this meeting, it will further refine its anticipated timing for a BLA filing.

On August 10, 2020, the Company issued a press release in connection with the foregoing, which is furnished as Exhibit 99.2 to this Current Report. Exhibit 99.2 attached hereto is intended to be furnished and shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filing.

### **Forward-Looking Statements**

This Current Report on Form 8-K (the “Current Report”) contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this Current Report that do not relate to matters of historical fact should be considered forward-looking statements, including the presentation of ECOSPOR III 24-week data, the results from ECOSPOR III providing an efficacy basis for a BLA submission, initiation of additional clinical sites in the open-label study of SER-109 and acceleration of enrollment in the open-label study, the timing, content and outcome of any meetings with the FDA, and the timing of submission of a BLA for SER-109.

These forward-looking statements are based on management’s current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause the Company’s actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the Company has incurred significant losses, is not currently profitable and may never become profitable; the Company’s need for additional funding; the Company’s limited operating history; the Company’s unproven approach to therapeutic intervention; the lengthy, expensive, and uncertain process of clinical drug development; the Company’s reliance on third parties to manufacture, develop, and commercialize its product candidates, if approved; the Company’s ability to develop and commercialize its product candidates, if approved; the potential impact of the COVID-19 pandemic; the Company’s ability to retain key personnel and to manage its growth; and that the Company’s management and principal stockholders have the ability to control or significantly influence its business. These and other important factors discussed under the caption “Risk Factors” in the Company’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission, or SEC, on July 28, 2020 and its other reports filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this Current Report. Any such forward-looking statements represent management’s estimates as of the date of this Current Report. While the Company may elect to update such forward-looking statements at some point in the future, the Company disclaims any obligation to do so, even if subsequent events cause its views to change. These forward-looking statements should not be relied upon as representing the Company’s views as of any date subsequent to the date of this Current Report.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibit

The following exhibits relate to Items 7.01 and 8.01, and shall be deemed to be furnished, and not filed:

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Seres Therapeutics, Inc. Corporate Slide Presentation as of August 10, 2020</a>
99.2	<a href="#">Press Release issued by Seres Therapeutics, Inc. on August 10, 2020</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

SERES THERAPEUTICS, INC.

Date: August 10, 2020

By: /s/ Thomas J. DesRosier

Name: Thomas J. DesRosier

Title: Chief Legal Officer and Executive Vice President

# Seres Therapeutics Overview

SER-109 ECOSPOR III top-line  
study results

August 10, 2020




**SERES**  
THERAPEUTICS™



## 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.

A detailed 3D illustration of a human gut microbiome. The background shows a cross-section of the intestinal lining with numerous red, finger-like villi. Various colorful microorganisms, including green and purple spheres, pink and blue rods, and green filamentous structures, are scattered throughout the scene, representing a diverse microbial community.

***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**



**SERES**  
THERAPEUTICS™



## 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

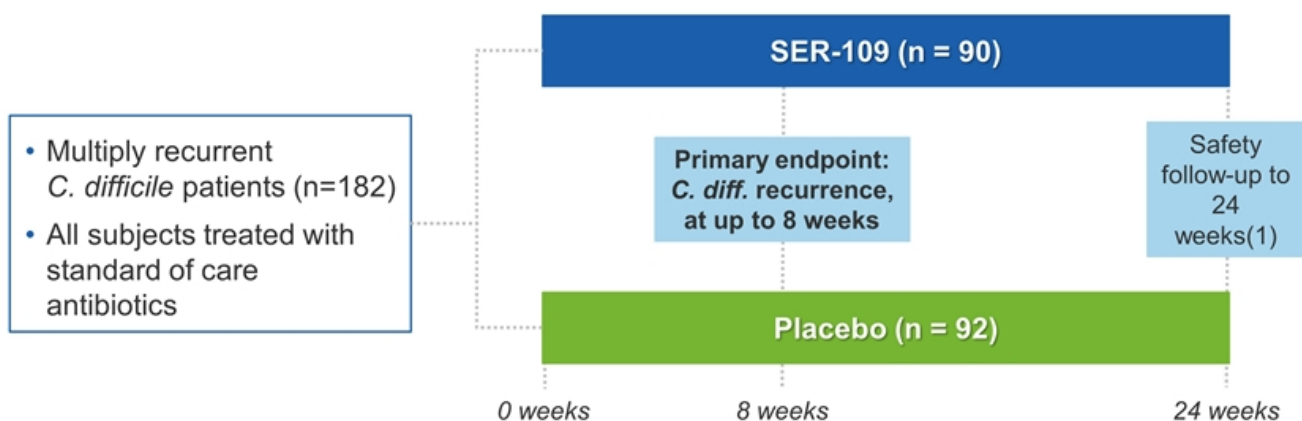
### Favorable safety profile observed

- 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*



## ECOSPOR III Phase 3 Study



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.



## 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**

## 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)
<i>C. difficile</i> 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***

## 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.

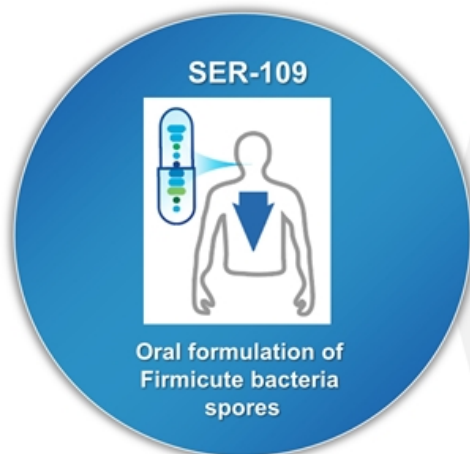


## Patient Demographics

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



## 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





## 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**



## 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***



## 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

The image displays three overlapping FDA safety alert notices. The top notice, dated June 13, 2019, is titled 'Important Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Risk of Serious Adverse Reactions Due to Transmission of Multi-Drug Resistant Organisms'. The middle notice, dated June 13, 2019, is titled 'Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Risk of Serious Adverse Events Likely Due to Transmission of Pathogenic Organisms'. The bottom notice, dated March 23, 2020, is titled 'Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Additional Safety Protections Pertaining to SARS-CoV-2 and COVID-19'. The bottom notice includes text about the global public health community's response to the SARS-CoV-2 pandemic and the FDA's determination that additional safety protections are needed for FMT.

**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

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

**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**

June 13, 2019

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

**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

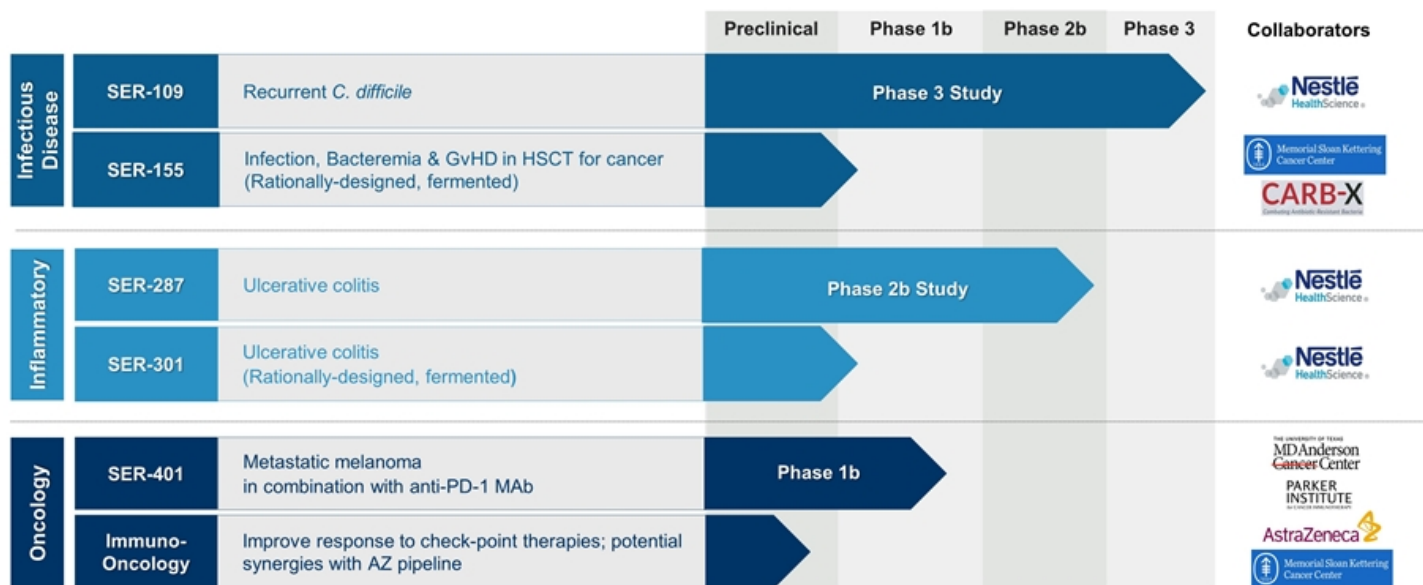
The global public health community is responding to a rapidly evolving pandemic of respiratory disease caused by a novel coronavirus that was first detected in China. The virus has been named "SARS-CoV-2" and the disease it causes has been named "COVID-19."

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.



## 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 pursuing 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





## 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**



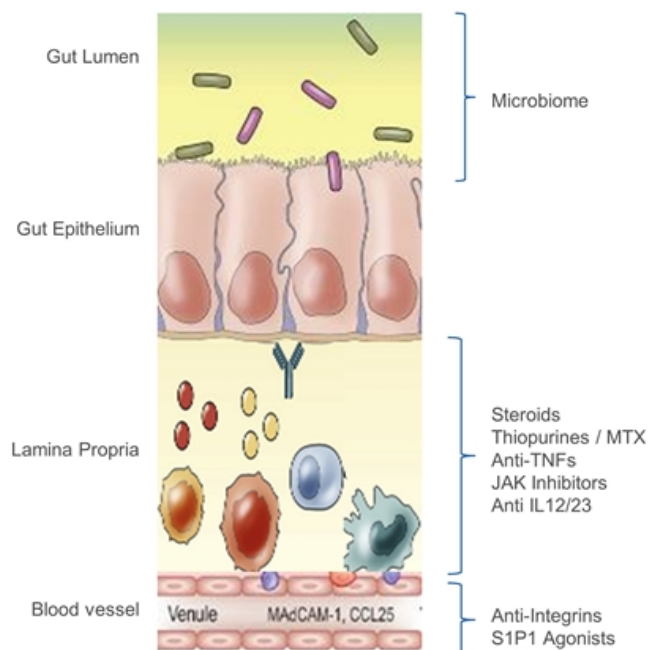
# The Dysbiotic Microbiome May Be A Trigger Of Inflammation In Ulcerative Colitis

## 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

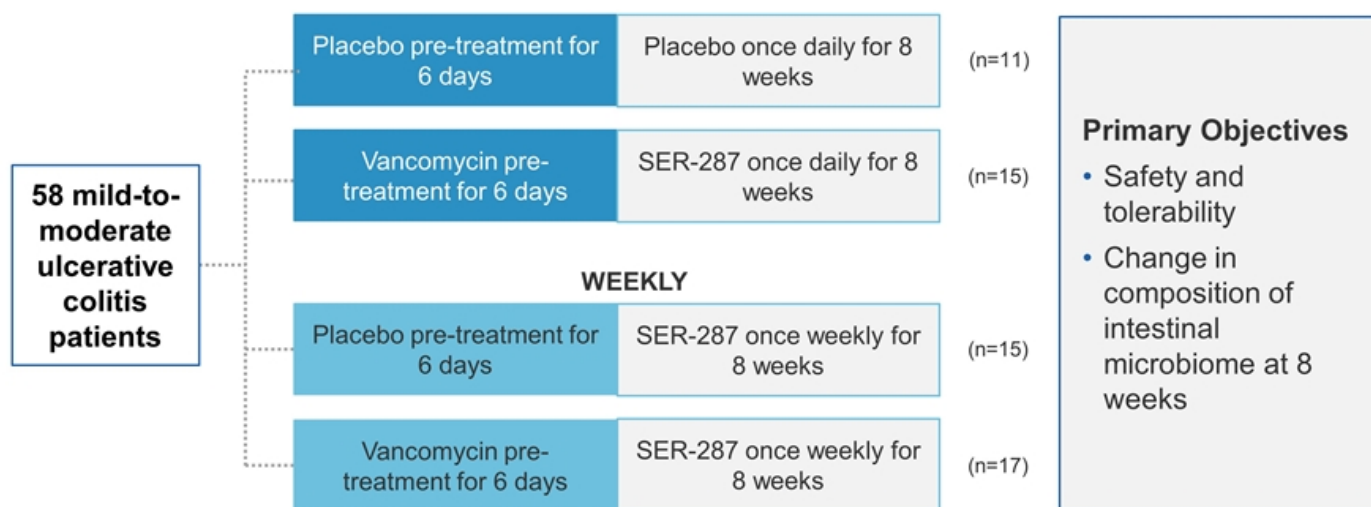
## Opportunity to develop both first-line and combination therapies





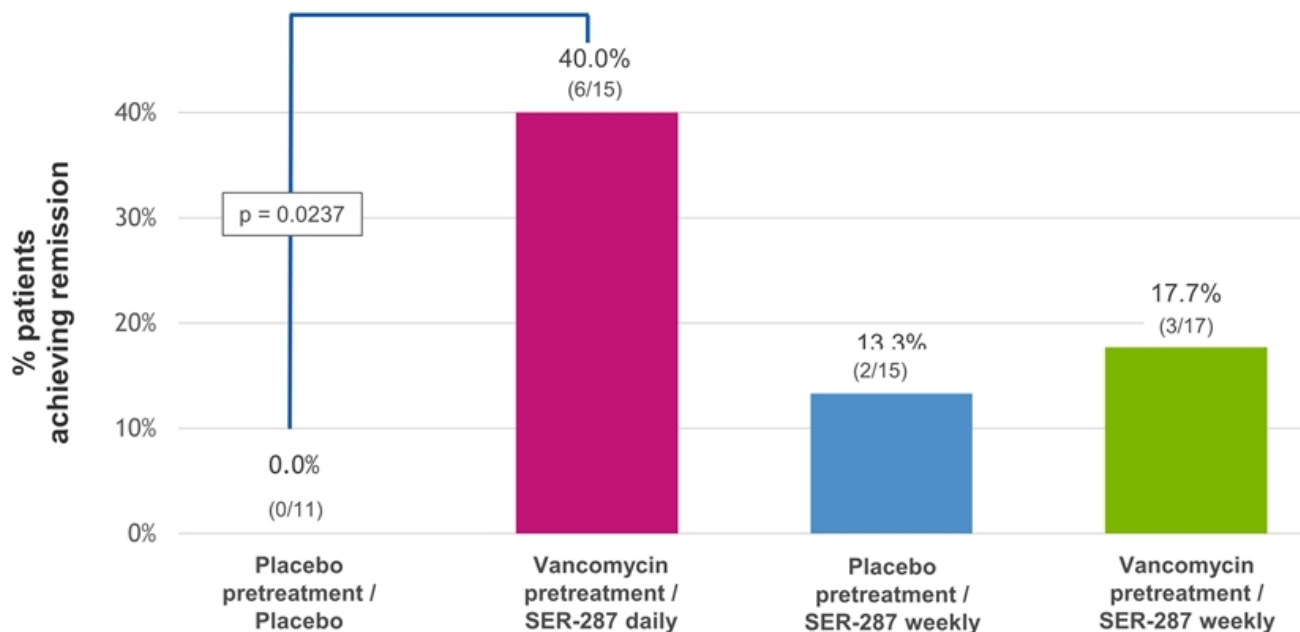


## SER-287 Phase 1b Ulcerative Colitis Study





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





## 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





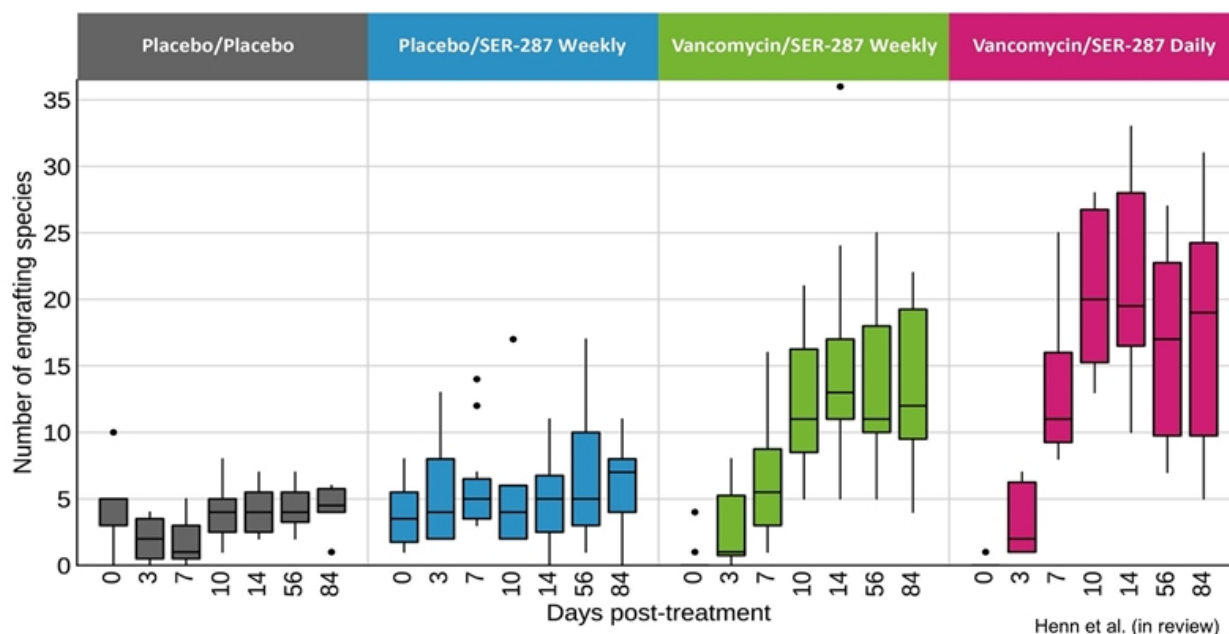
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## SER-287 Phase 1b Safety Results Show Safety Profile Comparable To Placebo

- 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%)



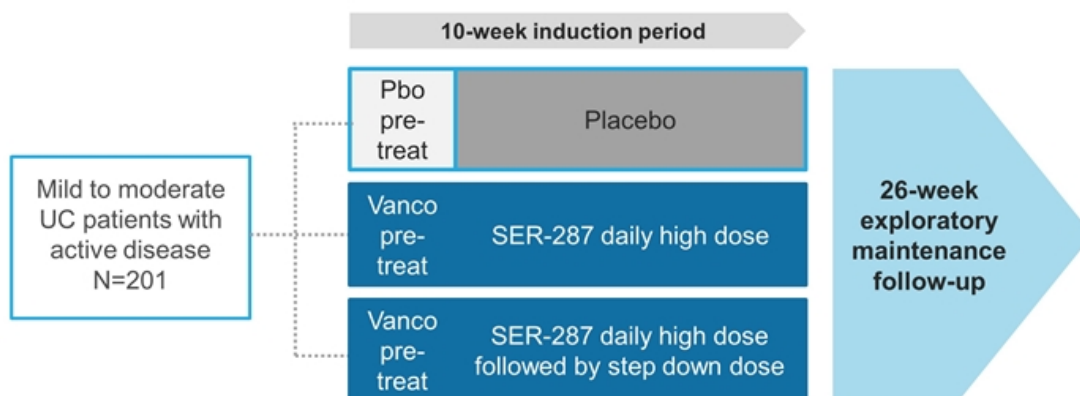
## Phase 1b Study Results – SER-287 Bacteria Engrafted In Subjects And Was Durable To Four Weeks After Dosing



- 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)



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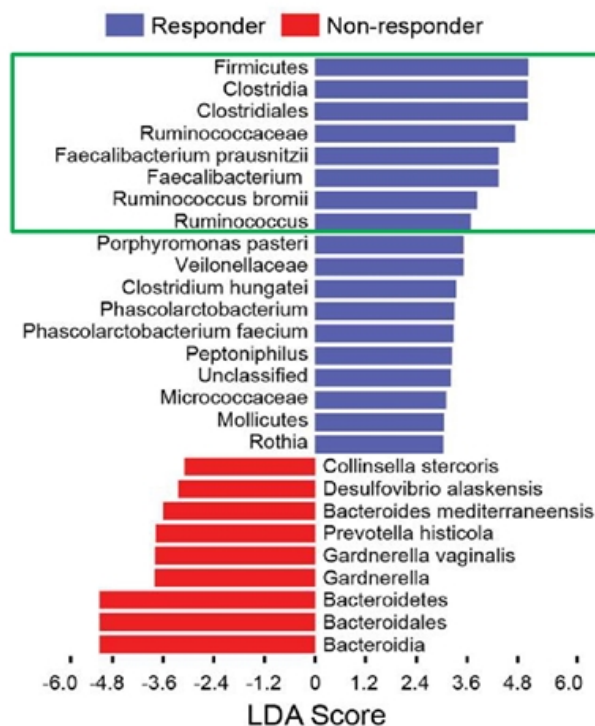
**Earlier stage development programs:  
SER-401, SER-301, SER-155**





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

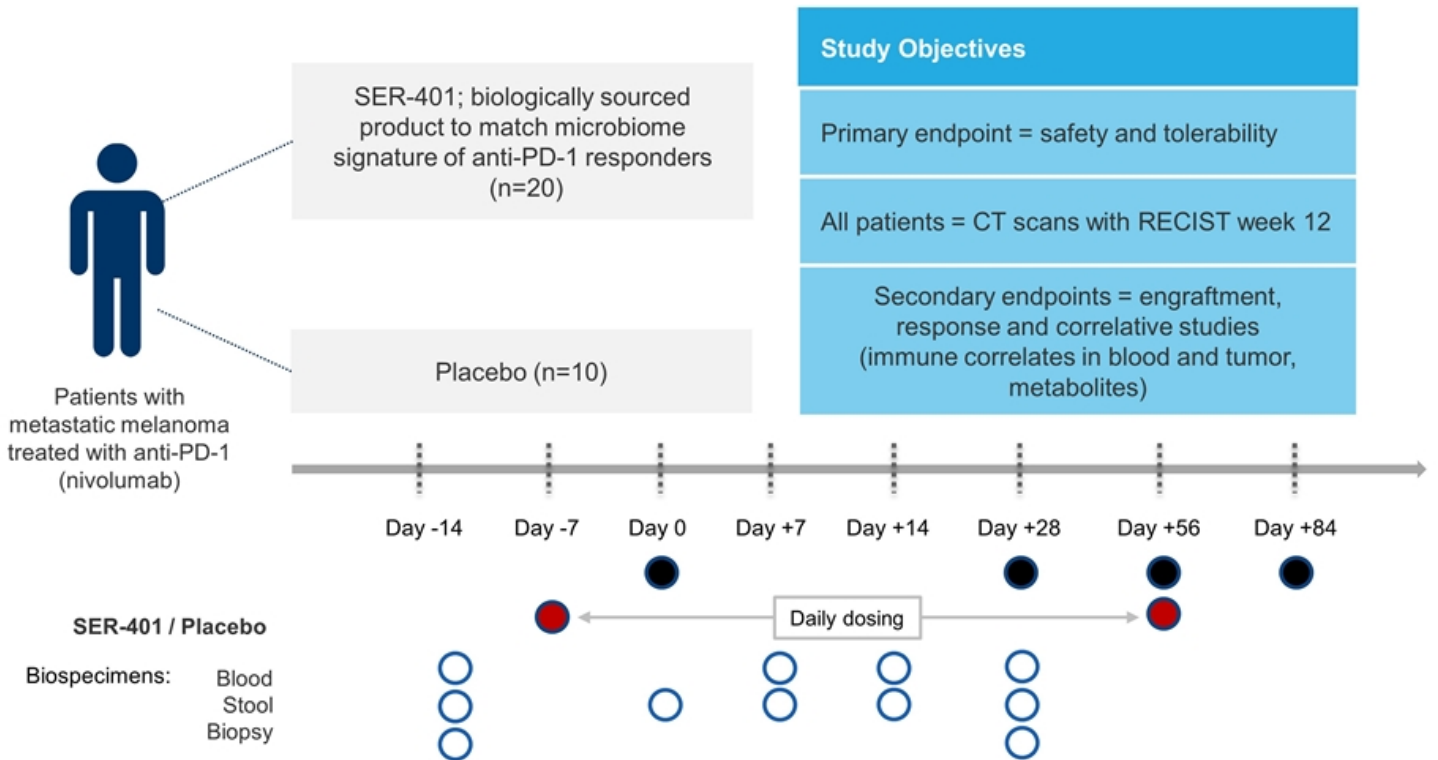
- SER-401 composition driven by bacteria consistent with responder profile
- Comprised entirely of spore formers; leverages Seres' deep expertise in biology and manufacturing







# Ongoing SER-401 Phase 1b Study

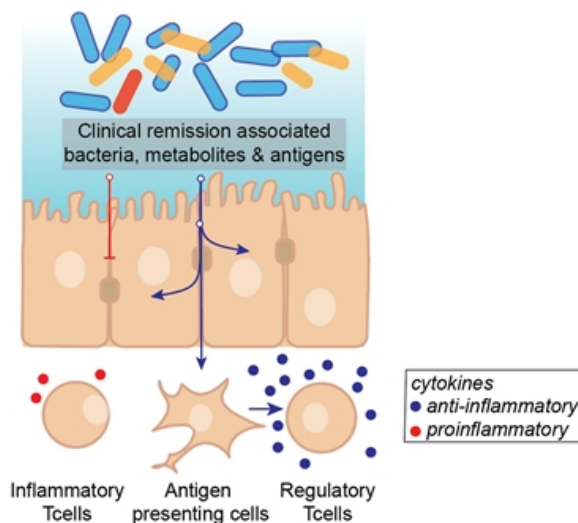




## SER-301: Next-generation, Rationally Designed Fermented Microbiome Therapeutic Candidate For Ulcerative Colitis

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

SER-301 catalyzes changes in microbiome & microbial-derived metabolites to reduce inflammation



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

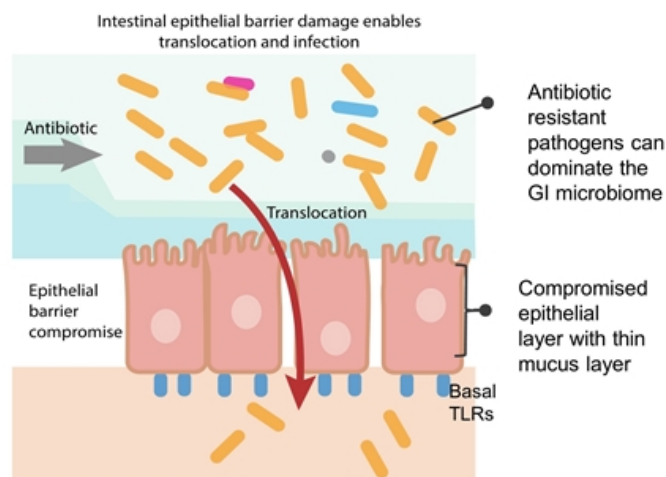


## SER-155: Rationally-designed, fermented microbiome therapeutic candidate for infection, bacteremia & GvHD

- 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:



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



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



## Differentiated CMC Capabilities

### Seres in-house GMP manufacturing and quality control capabilities



Cell banking & inoculum

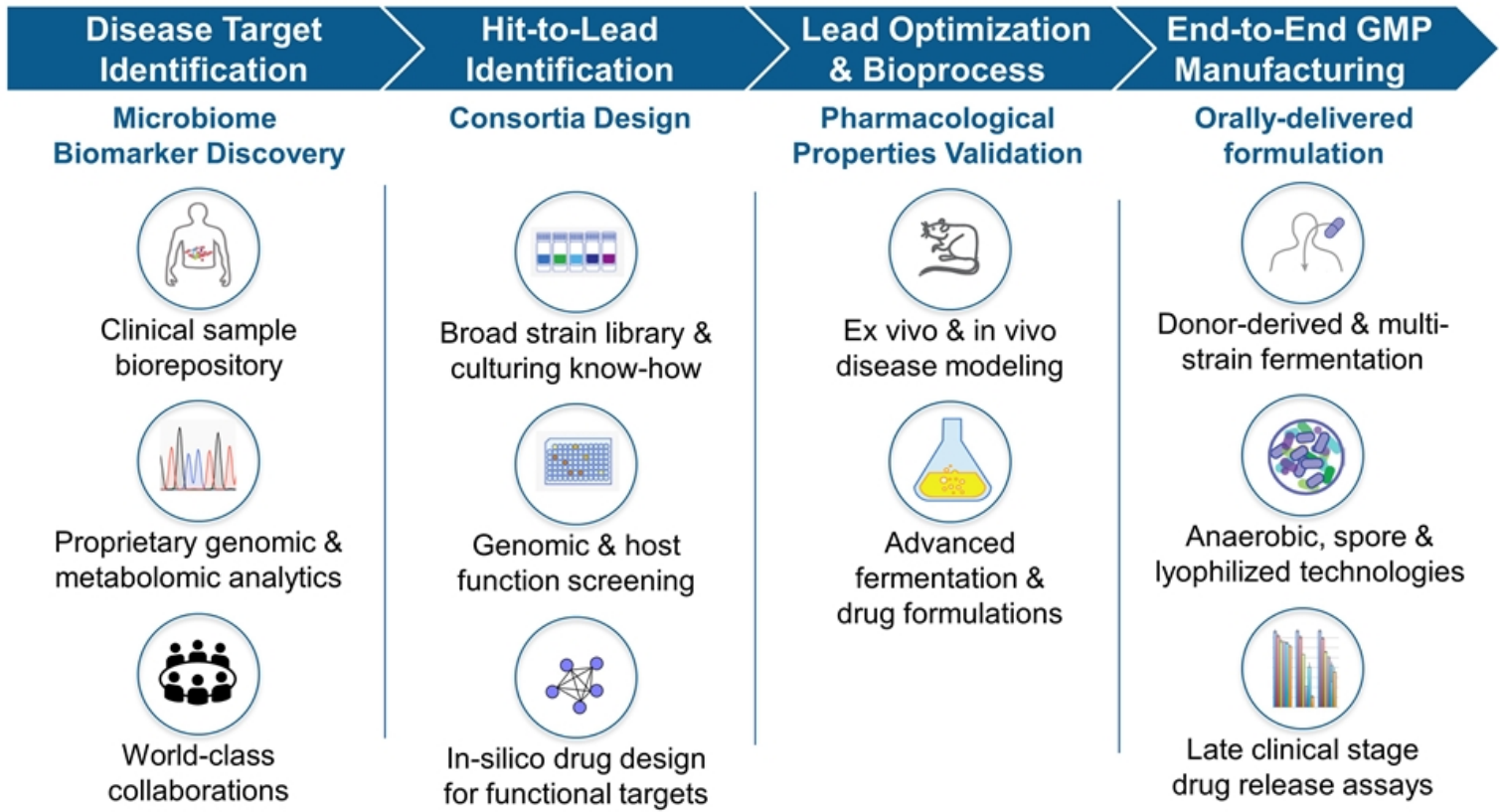
Drug substance

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

# In-house Research Engine Enable Efficient Early Discovery Through Manufacturing





## 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

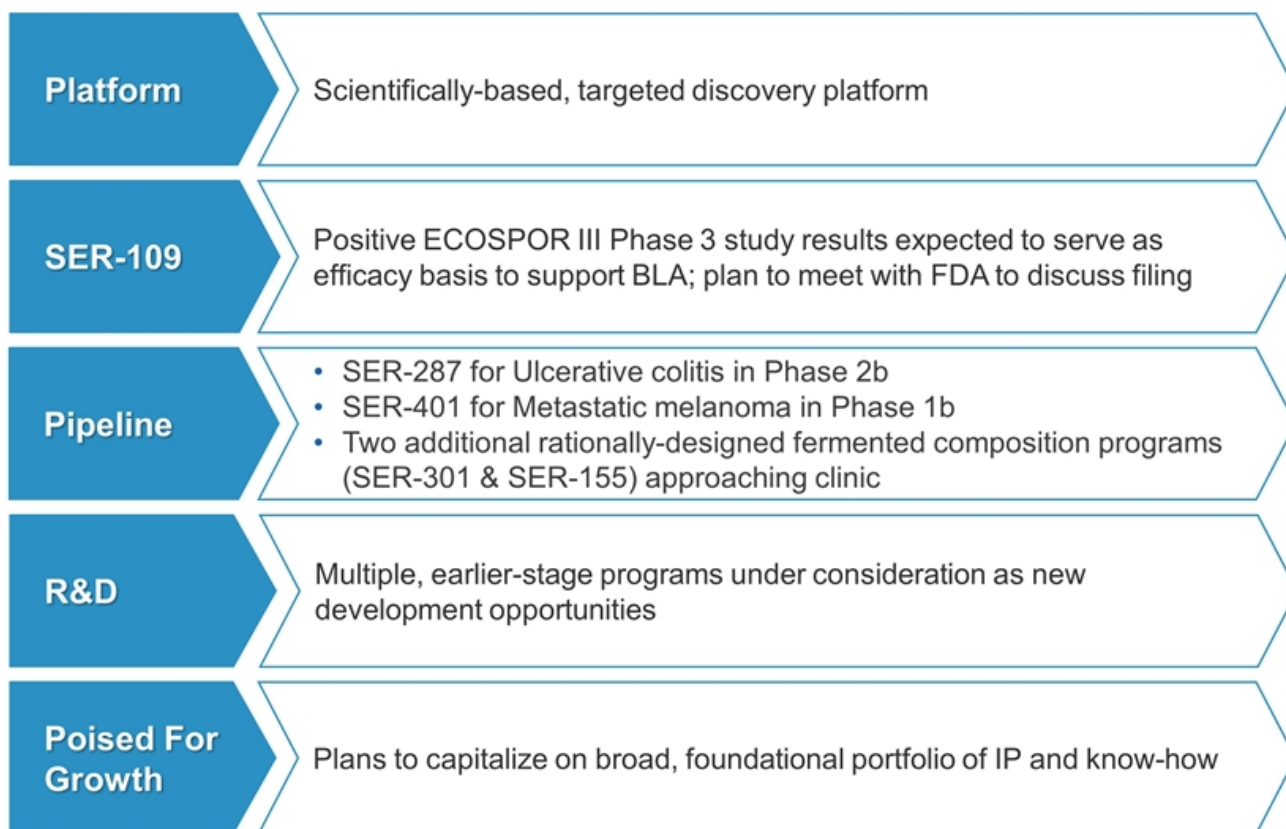


**10** years for new drug



## Seres: The Leading Microbiome Company

**Only Microbiome Company With Clinically Validated Platform**





**Seres Therapeutics Announces Positive Topline Results from SER-109 Phase 3 ECOSPOR III Study in Recurrent *C. difficile* Infection**

- *SER-109 met Phase 3 primary endpoint, showing a highly statistically significant 30.2% absolute reduction in the rate of *C. difficile* infection recurrence compared to placebo –*
- *SER-109 was well tolerated, with a safety profile comparable to placebo –*
- *Efficacy results substantially exceeded FDA regulatory guidance to support BLA filing as a single pivotal trial; Company to meet with agency to discuss filing for product approval as soon as possible –*
- *Positive SER-109 Phase 3 data provide validation for Seres' microbiome therapeutics platform and further development of its pipeline of product candidates –*
- *Conference call at 8:30 a.m. ET today -*

**CAMBRIDGE, Mass., August 10, 2020** — [Seres Therapeutics, Inc.](#) (Nasdaq: MCRB) today reported positive topline results from the pivotal Phase 3 ECOSPOR III study evaluating its investigational oral microbiome therapeutic SER-109 for recurrent *C. difficile* infection (CDI). The study showed that SER-109 administration resulted in a highly statistically significant absolute decrease of 30.2% in the proportion of patients who experienced a recurrence in CDI within eight weeks of administration versus placebo, the study's primary endpoint. 11.1% of patients administered SER-109 experienced a CDI recurrence, versus 41.3% of placebo patients. The study results were equally compelling when characterized by the alternative metric of sustained clinical response, where 88.9% of patients in the SER-109 arm achieved this objective.

The study's efficacy results exceeded the statistical threshold previously provided in consultation with the U.S. Food and Drug Administration (FDA) that could allow this single clinical study to fulfill efficacy requirements for a Biologics License Application (BLA). The SER-109 safety results were favorable, with an adverse event profile comparable to placebo.

"We are extremely pleased with these highly clinically meaningful SER-109 Phase 3 study results, greatly exceeding the statistical threshold provided by the FDA. Based on our prior discussions with the FDA, we believe this trial should provide the efficacy basis for submitting an application for product approval. We look forward to meeting with the FDA as soon as possible to discuss the regulatory path forward with the goal of bringing SER-109 to patients as a first-in-class microbiome therapeutic," said Eric D. Shaff, President and Chief Executive Officer of Seres. "Our



results represent the first-ever positive pivotal clinical study results for a targeted microbiome drug candidate. We believe these Phase 3 data provide strong validation for our underlying microbiome therapeutics platform, which has been the scientific basis for the Company, as well as persuasive clinical evidence supporting our other active pipeline programs.”

“We would like to thank all those who participated in this landmark study. Based on these highly positive SER-109 ECOSPOR III results, we believe that this novel microbiome therapeutic candidate could potentially provide a much-needed effective oral treatment option for the approximately 170,000 patients in the U.S. that suffer from recurrent CDI annually,” said Lisa von Moltke, M.D., FCP, Chief Medical Officer of Seres. “Seres applied a data-driven and scientifically rigorous approach to develop SER-109. The proprietary scientific learnings we have obtained continue to drive our overall R&D efforts and the advancement of our other ongoing microbiome therapeutic programs.”

“Recurrent *C. difficile* infection is a serious disease that devastates patients’ quality of life, and in many severe cases may result in a patient’s death. Today’s treatment options have important shortcomings related to efficacy, safety and route of administration, and novel approaches that target the root causes of the disease are urgently needed. The SER-109 Phase 3 results are highly impressive and represent an exceptional advance in the fight against this disease. I believe that SER-109 has the potential to fundamentally transform the treatment of recurrent *C. difficile* infection,” said Mark Wilcox, M.D., Professor of Medical Microbiology, University of Leeds.

### **ECOSPOR III Study Design and Results**

The ECOSPOR III study (ClinicalTrials.gov identifier: NCT03183128) is a multicenter, randomized, placebo-controlled study that enrolled 182 patients with multiply recurrent CDI. Patients were randomized 1:1 to receive either SER-109 or placebo, after standard of care antibiotic treatment. SER-109, or placebo, was administered orally for three consecutive days. All patients were required to have a positive *C. difficile* toxin diagnostic test both at study entry and in the case of suspected recurrence to ensure the selection of individuals with active disease and to confirm the accuracy of the primary endpoint.

The primary efficacy endpoint of ECOSPOR III was the proportion of patients with recurrent CDI at up to eight weeks following administration of SER-109 or placebo. As a secondary endpoint, patients are evaluated for CDI recurrence through 24 weeks post-treatment, and the Company plans to present those results at a future date.

SER-109 met the study’s primary endpoint with a significantly lower recurrence rate of 11.1% in SER-109 patients versus 41.3% in placebo patients at eight weeks;  $p < 0.001$  tested at the one-sided 0.25 level. Patients administered SER-109 experienced a 30.2% lower rate of recurrence, on an absolute basis, compared to placebo. The SER-109 treatment arm relative risk was 0.27 (95% CI=0.15 to 0.51) versus placebo. The ECOSPOR III recurrence rates translate into a sustained clinical response rate of 88.9% versus 58.7% with SER-109 and placebo, respectively. The SER-109 Number Needed to Treat (NNT) was approximately 3.

In prior discussions, the FDA communicated that demonstration of a statistically very persuasive efficacy finding in the ECOSPOR III primary endpoint, defined as demonstrating a 95% upper confidence level of relative risk lower than 0.833, could support a BLA submission on the basis of this single study. The results of ECOSPOR III demonstrated a SER-109 relative risk of 0.27 (95% CI=0.15 to 0.51) compared to placebo. As a result, Seres believes that this study should support the efficacy basis for BLA submission. SER-109 has obtained FDA Breakthrough Therapy and Orphan Drug designations.

SER-109 was well tolerated, with no treatment-related serious adverse events (SAEs) observed in the active arm, and an adverse event profile similar to placebo. The overall incidence of patients who experienced AEs during the eight-week study period was similar between SER-109 and placebo arms. The most commonly observed treatment-related AEs were flatulence, abdominal distention and abdominal pain, which were generally mild to moderate in nature, and these were observed at a similar rate in both the SER-109 and placebo arms.

A SER-109 open-label study is ongoing (ClinicalTrials.gov identifier: NCT03183141) at selected clinical sites that participated in the ECOSPOR III study, and the Company may initiate the program at additional clinical sites. The FDA has previously indicated that SER-109 administration to at least 300 patients, consistent with standard FDA guidance, would be required to support BLA submission. The ongoing SER-109 open-label study is continuing to contribute to the SER-109 safety database.

The Company plans to immediately request a Breakthrough Therapy designation meeting with the FDA to discuss the requirements to submit a BLA seeking regulatory approval of SER-109. Given the favorable efficacy and safety results seen in ECOSPOR III, the safety results observed in prior SER-109 clinical studies, and the critical unmet need for a therapeutic option for recurrent CDI patients, the Company plans to discuss with the FDA the safety data requirements for a BLA filing.

Seres continues to advance its commercial readiness for the potential launch of SER-109. In June 2020, Seres appointed Terri Young, Ph.D., R.Ph., as Chief Commercial and Strategy Officer. The Company has been conducting activities to support successful future potential commercialization. Seres believes that the commercial opportunity for SER-109 could be substantial, given the dire need for an effective, safe, oral therapeutic, and the strength of the SER-109 Phase 3 study results.

#### **Conference Call Information**

Seres' management will host a conference call today, August 10, 2020, at 8:30 a.m. ET. To access the conference call, please dial 844-277-9450 (domestic) or 336-525-7139 (international) and reference the conference ID number 3216859. Accompanying slides will be posted on the Seres website ahead of the conference call. To join the live webcast, and to view the accompanying slides, please visit the "Investors and Media" section of the Seres website at [www.serestherapeutics.com](http://www.serestherapeutics.com).

A webcast replay will be available on the Seres website beginning approximately two hours after the event and will be archived for approximately 21 days.

#### **About SER-109**

SER-109 is an investigational, oral, biologically-derived microbiome therapeutic that is designed to reduce recurrence of *C. difficile* infection (CDI), enabling patients to achieve a sustained clinical response by breaking the vicious cycle of CDI recurrence and restoring the diversity of the gastrointestinal microbiome. SER-109 is a consortium of purified bacterial spores of multiple Firmicute species, manufactured by fractionating targeted bacteria from the stool of healthy human donors with further steps to inactivate potential pathogens. The FDA has granted SER-109 Breakthrough Therapy designation and Orphan Drug designation for the treatment of CDI.

SER-109 is fundamentally distinct from fecal microbiota transplantation (FMT). SER-109 is comprised of a highly-purified consortia of spore-based commensal bacteria and designed to be manufactured in accordance with Good Manufacturing Practice conditions using stringent standards to ensure product quality and consistency. To support product safety, Seres utilizes a unique manufacturing process that inactivates numerous potential pathogens, including species of non-spore bacteria, such as *Escherichia coli*, and viruses such as SARS-CoV-2.

#### **About *C. difficile* Infection (CDI) and Current Treatments**

*C. difficile* infection (CDI) is one of the top three most urgent antibiotic-resistant bacterial threats in the U.S., according to the Centers for Disease Control, and is a leading cause of hospital-acquired infection in the U.S. It is responsible for the deaths of approximately 20,000 Americans each year. CDI is associated with debilitating diarrhea, which significantly impacts quality of life in every functional domain. Since the discovery of *C. difficile* more than four decades ago, vancomycin has been the most commonly used drug for patient management. Current approaches provide only modest improvements in sustained clinical response rates, leaving behind a significant pool of patients with recurrent disease. Unapproved FMT, used in cases that are not responsive to approved drugs, remains poorly characterized clinically and has been associated with serious safety concerns, including the transmission of bacterial pathogens and the potential transmission of viruses such as SARS-CoV-2, the virus that causes COVID-19. The recent quarantine and shipping hold of FMT from a major stool bank highlights the urgent need for an approved effective and safe treatment for recurrent CDI.

#### **About Seres Therapeutics**

Seres Therapeutics, Inc., (Nasdaq: MCRB) is a leading microbiome therapeutics platform company developing a novel class of multifunctional bacterial consortia that are designed to functionally interact with host cells and tissues to treat disease. Seres' SER-109 program achieved the first-ever positive pivotal clinical results for a targeted microbiome drug candidate and has obtained Breakthrough Therapy and Orphan Drug designations from the FDA. The SER-109 program is being advanced for the treatment of recurrent *C. difficile* infection and has potential

to become a first-in-class FDA-approved microbiome therapeutic. Seres' SER-287 program has obtained Fast Track and Orphan Drug designations from the FDA and is being evaluated in a Phase 2b study in patients with active mild-to-moderate ulcerative colitis. Seres is developing SER-401 in a Phase 1b study in patients with metastatic melanoma, SER-301 for ulcerative colitis and SER-155 to prevent mortality due to gastrointestinal infections, bacteremia and graft versus host disease. For more information, please visit [www.serestherapeutics.com](http://www.serestherapeutics.com).

### **Forward Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including the potential approval of SER-109 by the FDA, the potential for SER-109 to be a first-in-class therapy, the timing, content and outcome of any meetings with the FDA, the results from ECOSPOR III providing an efficacy basis for a BLA submission, the potential number of patients who could be treated by SER-109, the ability of SER-109 to transform the treatment of CDI or be a much-needed effective oral treatment option for recurrent CDI, the potential requirements by the FDA for additional safety data, initiation of additional clinical sites in the open-label study of SER-109, commercial opportunity of SER-109, the impact of SER-109 data on the Seres pipeline programs and platform overall, the design of SER-109 and its treatment potential, and the presentation of ECOSPOR III 24-week data, and other statements that are not historical facts.

These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: We have incurred significant losses, are not currently profitable and may never become profitable; our need for additional funding; our limited operating history; our unproven approach to therapeutic intervention; the lengthy, expensive, and uncertain process of clinical drug development; our reliance on third parties to manufacture, develop, and commercialize our product candidates, if approved; the ability to develop and commercialize our product candidates, if approved; the potential impact of the COVID-19 pandemic; our ability to retain key personnel and to manage our growth; and that our management and principal stockholders have the ability to control or significantly influence our business. These and other important factors discussed under the caption "Risk Factors" in our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission, or SEC, on July 28, 2020 and our other reports filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this press release.

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**PR Contact**

Lisa Raffensperger  
[lisa@tenbridgecommunications.com](mailto:lisa@tenbridgecommunications.com)

**IR Contact**

Carlo Tanzi, Ph.D.  
[ctanzi@serestherapeutics.com](mailto:ctanzi@serestherapeutics.com)

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