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): May 9, 2018

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

Delaware	**001-37465**	**27-4326290**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

200 Sidney Street **Cambridge, MA**	**02139**
(Address of Principal Executive Offices)	**(Zip Code)**

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

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

Indicate by check mark whether the registrant is an emerging growth company as defined in 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. ☒

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 (see General Instructions A.2. below):

☐ 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))

Item 2.02. Results of Operations and Financial Condition.

On May 9, 2018, Seres Therapeutics, Inc. (the "Company") announced its financial results for the quarter ended March 31, 2018. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Item 2.02 of this Form 8-K (including Exhibit 99.1) 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, or the Exchange Act, except as expressly provided by specific reference in such a filing.

Item 7.01. Regulation FD Disclosure.

On May 9, 2018, the Company posted an updated corporate slide presentation in the "Investors and Media" portion of its website at www.serestherapeutics.com including strategic and operation updates and updated cash guidance. A copy of the slide presentation is attached as Exhibit 99.2 to this Current Report on Form 8-K.

The information in Item 7.01 of this Current Report on Form 8-K, including 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 of 1933, as amended, 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 99.2.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The following exhibits relating to Item 2.02 and Item 7.01, respectively shall be deemed to be furnished, and not filed:

Exhibit No.	Description
99.1	Press Release issued on May 9, 2018
99.2	Seres Therapeutics, Inc. Corporate Slide Presentation as of May 9, 2018

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: May 9, 2018

By: /s/ Thomas J. DesRosier
Name: Thomas J. DesRosier
Title: Chief Legal Officer and Executive Vice President

Seres Therapeutics Reports First Quarter Financial Results and Provides Operational Updates

– *Preclinical data provide mechanistic insights related to the potency of microbiome therapeutics to augment immuno-oncology treatments; initiation of clinical study in metastatic melanoma planned for later this year* –

– *FDA dialogue ongoing to support development of SER-287 for Ulcerative Colitis; Company plans to initiate clinical trial in mid-2018* –

– *Company to host Microbiome R&D Day on May 24 in New York City* –

– *Conference call at 8:30 a.m. ET today* –

CAMBRIDGE, Mass., May 9, 2018 — Seres Therapeutics, Inc. (Nasdaq:MCRB), today reported first quarter financial results and provided operational updates.

Roger J. Pomerantz, M.D., President, CEO and Chairman of Seres commented: "Seres has made significant progress in advancing our field-leading microbiome therapeutic pipeline. We continue to enroll the SER-109 Phase 3 study in patients with multiply recurrent *C. difficile* infection. We have had positive dialogues with FDA to support further development of SER-287 in Ulcerative Colitis and we continue to plan to initiate a next SER-287 study in mid-2018. Seres also presented important preclinical data that further elucidate how microbiome therapy impacts immune biology and checkpoint inhibitor activity. Dialogue with the FDA is ongoing regarding immuno-oncology related development plans, and we expect initiation of the SER-401 microbiome therapy clinical study later this year."

Recent Highlights

- **FDA feedback obtained regarding further development of SER-287:** The FDA recently provided positive feedback on proposed further development activity for SER-287. Seres intends to finalize its plans for further SER-287 development and expects to initiate an induction study in patients with active mild-to-moderate Ulcerative Colitis in mid-2018.

  Seres previously reported positive results from a SER-287 Phase 1b placebo-controlled induction study in 58 patients with mild-to-moderate Ulcerative Colitis who were failing current therapies. SER-287 administration resulted in a dose-dependent improvement of

both clinical remission rates and endoscopic scores. High clinical response rates were observed in the placebo arm and were not statistically differentiated from the SER-287 treatment arms. The SER-287 safety and tolerability profile was favorable with no imbalance in adverse events in patients treated with SER-287, as compared to placebo. Analyses of study microbiome data demonstrated that SER-287 induced dose-dependent engraftment of SER-287-derived bacterial species.

- **Continued execution of the SER-109 ECOSPOR III Phase 3 study:** Seres continues to enroll its SER-109 Phase 3 clinical study in patients with multiply recurrent *C. difficile* infection, at sites in both the U.S. and Canada. Based on previously disclosed interactions with the FDA, ECOSPOR III has been designated a Phase 3 trial and the Company expects that this single pivotal study could support SER-109 registration and approval. SER-109 has been designated by the FDA as a Breakthrough Therapy and has been given Orphan Drug Designation.
- **New microbiome immuno-oncology preclinical data***:* Seres presented foundational, preclinical data at the 2018 Annual Meeting of the American Association for Cancer Research which provide mechanistic insights on the microbiome's role in checkpoint inhibitor efficacy in cancer tumor models. In collaboration with the Parker Institute for Immunotherapy and MD Anderson Cancer Center, Seres expects to initiate a clinical study later this year to evaluate the potential for SER-401, a microbiome therapy, to augment checkpoint inhibitor response in patients with metastatic melanoma.
- **SER-262 preliminary Phase 1b study results:** Seres previously reported that it obtained preliminary clinical and microbiome results from the SER-262 Phase 1b, first-in-human, dose-escalation clinical study of SER-262 in patients with primary *C. difficile* infection. SER-262 is the first rationally-designed, fermented microbiome therapeutic candidate ever evaluated in patients. Of note, a low *C. difficile* recurrence rate was observed in patients treated with Vancomycin and SER-262, as compared to those treated with Metronidazole and SER-262 (4% versus 31%, respectively). This difference was statistically significant with a p value of 0.0049. Phase 1b microbiome data suggest that treatment with Vancomycin, followed by SER-262, results in more robust and kinetically more rapid engraftment, and thus may lead to corresponding clinical efficacy. Clinical, microbiome and metabolomic analyses remain ongoing. The proprietary SER-262 human data sets obtained will be used to inform future development of SER-262 and other fermented Seres therapeutic candidates, including SER-301 for Inflammatory bowel disease.

Financial Results

Seres reported a net loss of $27.9 million for the first quarter of 2018, as compared to a net loss of $25.5 million from the first quarter of 2017. The first quarter net loss was driven primarily by clinical and development expenses, personnel expenses, and ongoing development of the Company's microbiome therapeutics platform. The first quarter net loss figure was inclusive of $4 million in recognized revenue primarily associated with the Company's collaboration with Nestlé Health Science.

Research and development expenses for the first quarter 2018 were $23.5 million, as compared to $20.1 million for the same period in 2017. The research and development expense was primarily related to Seres' microbiome therapeutics platform, the clinical development of SER-109, SER-262 and SER-287, as well as the Company's immuno-oncology preclinical programs.

General and administrative expenses for the fourth quarter were $8.8 million, as compared to $8.8 million for the same period in the prior year. General and administrative expenses were primarily due to headcount, professional fees and facility costs.

The decrease in the Company's cash, cash equivalents and investments balance during the quarter was $27.8 million. Seres ended the fourth quarter with approximately $122.2 million in cash, cash equivalents and investments.

Financial Expectations

Based on the Company's current operating plan, cash resources are expected to fund operating expenses and capital expenditure requirements, excluding net cash flows from future business development activities or potential incoming milestone payments, for at least the next 12 months.

Seres is eligible to receive a substantial milestone payment, not considered in the financial guidance update, associated with the planned initiation of the next SER-287 clinical study.

Upcoming Microbiome R&D Day

Seres plans to host a webcast R&D day at 8:30 am ET on May 24 in New York City. The event will focus on the opportunity for microbiome therapeutics to impact immune biology and will feature Seres scientists and clinicians, as well as external academic subject matter experts.

Conference Call Information

Seres' management will host a conference call today, May 9, 2018, 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 1599207. An updated corporate presentation will be made available on the Seres website prior to the call. To join the live webcast, please visit the "Investors and Media" section of the Seres website at 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 Seres Therapeutics

Seres Therapeutics, Inc., (Nasdaq:MCRB) is a leading microbiome therapeutics platform company developing a novel class of biological drugs that are designed to treat disease by restoring the function of a dysbiotic microbiome, where the state of bacterial diversity and function is imbalanced. Seres' lead program, SER-109, has obtained Breakthrough Therapy and Orphan Drug

designations from the U.S. Food and Drug Administration and is in Phase 3 development for multiply recurrent *C. difficile* infection. Seres' clinical candidate SER-287 has successfully completed a Phase 1b study in patients with mild-to-moderate Ulcerative Colitis. Seres is also evaluating SER-262, a rationally-designed microbiome therapeutic candidate, in a Phase 1b study in patients with primary *C. difficile* infection. Seres is developing SER-401 to impact the immune response and increase the efficacy of checkpoint inhibitors used in cancer treatment. For more information, please visit www.serestherapeutics.com. Follow us on Twitter @SeresTx.

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 our development plans, the ability of ECOSPOR III to support SER-109 approval, the promise and potential impact of any of our microbiome therapeutics or clinical trial data, timing of and plans to initiate clinical studies of SER-287 and SER-401, the timing and results of any clinical studies, and the sufficiency of cash to fund operations.

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, including potential delays in regulatory approval; our reliance on third parties and collaborators to conduct our clinical trials, manufacture our product candidates, and develop and commercialize our product candidates, if approved; our lack of experience in manufacturing, selling, marketing, and distributing our product candidates; failure to compete successfully against other drug companies; protection of our proprietary technology and the confidentiality of our trade secrets; potential lawsuits for, or claims of, infringement of third-party intellectual property or challenges to the ownership of our intellectual property; our patents being found invalid or unenforceable; risks associated with international operations; our ability to retain key personnel and to manage our growth; the potential volatility of our common stock; our management and principal stockholders have the ability to control or significantly influence our business; and we are currently subject to securities class action litigation. These and other important factors discussed under the caption "Risk Factors" in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 8, 2018 and our other reports filed with the SEC, including the Quarterly Report we intend to file later today, 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.

SERES THERAPEUTICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited, in thousands, except share and per share data)

	March 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 47,194	$ 36,088
Investments	75,000	113,895
Prepaid expenses and other current assets	4,260	5,095
Total current assets	126,454	155,078
Property and equipment, net	31,466	32,931
Restricted cash	1,513	1,513
Total assets	$ 159,433	$ 189,522
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 5,418	$ 7,033
Accrued expenses and other current liabilities	11,873	12,513
Deferred revenue - related party	17,859	12,079
Total current liabilities	35,150	31,625
Lease incentive obligation, net of current portion	8,554	8,989
Deferred rent	2,234	2,233
Deferred revenue, net of current portion - related party	102,333	84,847
Other long-term liabilities	1,129	1,129
Total liabilities	149,400	128,823
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value; 10,000,000 shares authorized at March 31, 2018 and December 31, 2017; no shares issued and outstanding at March 31, 2018 and December 31, 2017	—	—
Common stock, $0.001 par value; 200,000,000 shares authorized at March 31, 2018and December 31, 2017; 40,652,668 and 40,571,015 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively	40	40
Additional paid-in capital	328,446	324,376
Accumulated other comprehensive loss	(106)	(146)
Accumulated deficit	(318,347)	(263,571)
Total stockholders' equity	10,033	60,699
Total liabilities and stockholders' equity	$ 159,433	$ 189,522

SERES THERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(unaudited, in thousands, except share and per share data)

	Three Months Ended March 31,	
	2018	2017
Revenue:		
Collaboration revenue - related party	$ 3,766	$ 3,015
Grant revenue	205	—
Total revenue	3,971	3,015
Operating expenses:		
Research and development expenses	23,460	20,143
General and administrative expenses	8,777	8,762
Total operating expenses	32,237	28,905
Loss from operations	(28,266)	(25,890)
Other income (expense):		
Interest income (expense), net	347	416
Total other income (expense), net	347	416
Net loss	$ (27,919)	$ (25,474)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.69)	$ (0.63)
Weighted average common shares outstanding, basic and diluted	40,628,434	40,368,536
Other comprehensive income (loss):		
Unrealized gain (loss) on investments, net of tax of $0	$ 40	$ (2)
Total other comprehensive income (loss)	40	(2)
Comprehensive loss	$ (27,879)	$ (25,476)

IR or PR Contact:

Carlo Tanzi, Ph.D., Seres Therapeutics, 617-203-3467
Vice President, Investor Relations and Corporate Communications
ctanzi@serestherapeutics.com

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Exhibit 99.2

Corporate Overview

May 2018

SERES THERAPEUTICS™

Leading the Microbiome Revolution

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, statements on the timing and results of our clinical trials, the sufficiency of our financial resources, and dysbiosis as an underlying cause of disease or failed response to therapy. Such statements are subject to important factors, risks and uncertainties (such as those discussed under the caption "Risk Factors" in the Company’s Annual Report on Form 10-K filed on March 8, 2018 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 investor highlights

Opportunity	Phase 3 stage company developing microbiome-based therapeutics, a highly promising new area of medicine
Platform	Leader in microbiome drug development with differentiated capabilities, leading CMC and demonstrated GMP quality, and supportive clinical data
Pipeline	Focused R&D efforts in the areas of infectious diseases and inflammation & immunology, including immuno oncology
Team	Experienced, highly accomplished leadership team

The microbiome is essential to human health

Infectious Disease

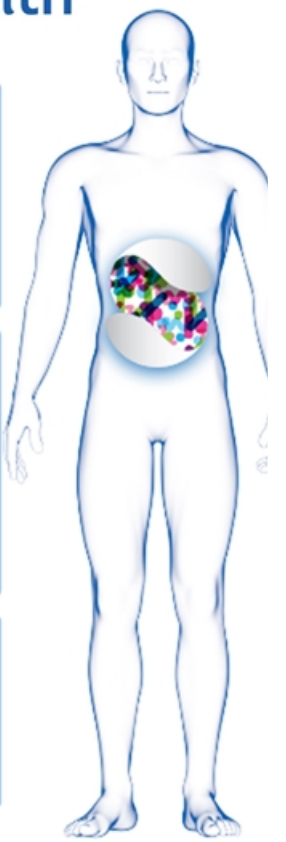
- A diverse microbiome resists colonization by exogenous pathogens
- Exposure to broad spectrum antibiotics, and resulting gut microbiome dysbiosis, increase risk for *C. difficile* infection and colonization / infection by multi-drug resistant organisms

Inflammation and Immunology

- Microbiome known to alter regulatory T cells and Th17 T cell activation
- Role in inflammatory bowel disease (Ulcerative Colitis and Crohn's disease) as well as allergy, rheumatoid arthritis and multiple sclerosis
- The composition of the microbiome has been demonstrated to impact the efficacy and safety of immuno-oncology checkpoint inhibitors

Metabolic Disease

- Effects on glucose utilization, digestion and bile acid metabolism
- Role of microbiome implicated in several metabolic diseases (e.g. diabetes, obesity, liver diseases)



Selected references: Infectious disease / C. difficile: Leffler and Lamont, NEJM, 2015; Ulcerative colitis: Paramsothy et al. Lancet, 2017; Moayyedi et al. Gastroenterology, 2015; Immuno-oncology: Routy et al., Science 2017.; Golpalakrishnan et al., Science 2017.; Matson et al., Science, 2018. NASH: Le Roy et al., Hepatology, 2012. Metabolic disease: Perry et al. Nature, 2016, Ridaura VK et al., Science 2013; Primary sclerosing cholangitis: Tabibian JH et al., Hepatology, 2016.

Business strategy

Focused R&D on clinical programs

- Prioritize serious diseases where dysbiosis of the gut microbiome has a causal role

SER-287 for Ulcerative Colitis

***SER-109 for recurrent C. difficile* infection**

Adjunctive microbiome therapy with immuno-oncology

World class, differentiated, microbiome expertise

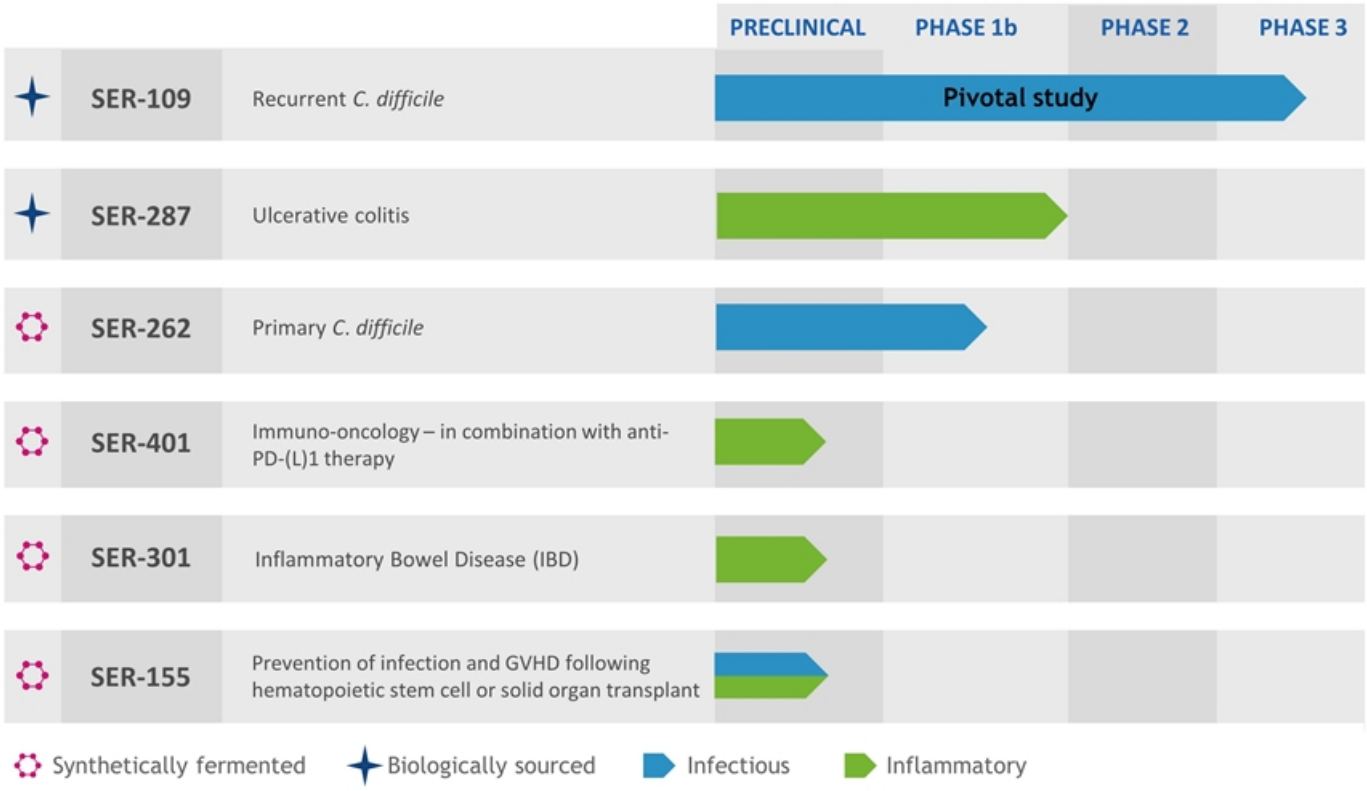
- Computational biology
- Basic microbiome research
- Microbiology
- Translational science
- Clinical development
- Advanced GMP manufacturing

Research in new therapeutic areas

- Collaborations with leading academic centers to efficiently advance research in promising new areas

MD Anderson Cancer Center · PARKER INSTITUTE for CANCER IMMUNOTHERAPY · Memorial Sloan Kettering Cancer Center · Penn · MAYO CLINIC · MASSACHUSETTS GENERAL HOSPITAL

Robust microbiome therapeutics pipeline



Research Collaborations

Memorial Sloan Kettering Cancer Center · Penn · MAYO CLINIC · MASSACHUSETTS GENERAL HOSPITAL · MD Anderson Cancer Center · PARKER INSTITUTE for CANCER IMMUNOTHERAPY

Clostridium difficile Infection

Overview and R&D Programs

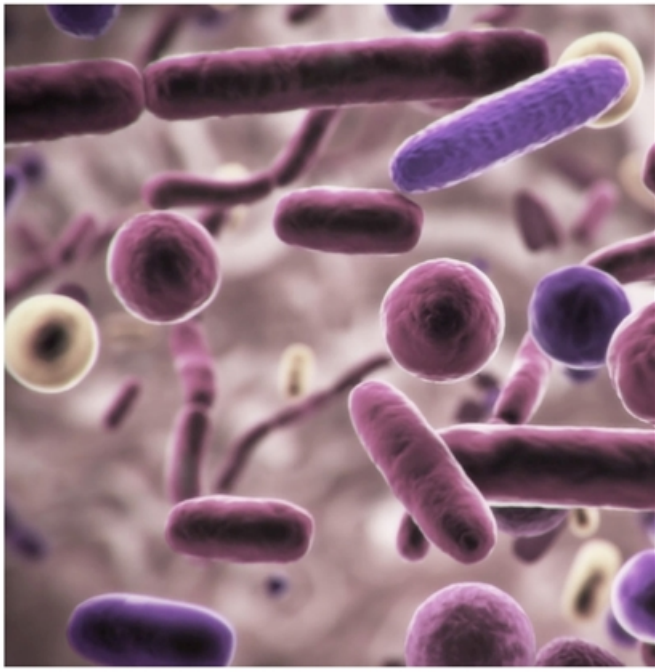
Leading the Microbiome Revolution

C. difficile infection overview

Infectious disease caused by toxin-producing anaerobic, spore-forming bacteria, resulting in diarrhea, abdominal pain, fever, and nausea

Leading cause of hospital-acquired infection in the US

- Approximately 29,000 deaths/year
- ~25% of patients with primary *C. difficile* recur
- Risk of relapse increases with each recurrence
- Multiply recurrent *C. difficile* infection incidence increased 188% between 2001-2010



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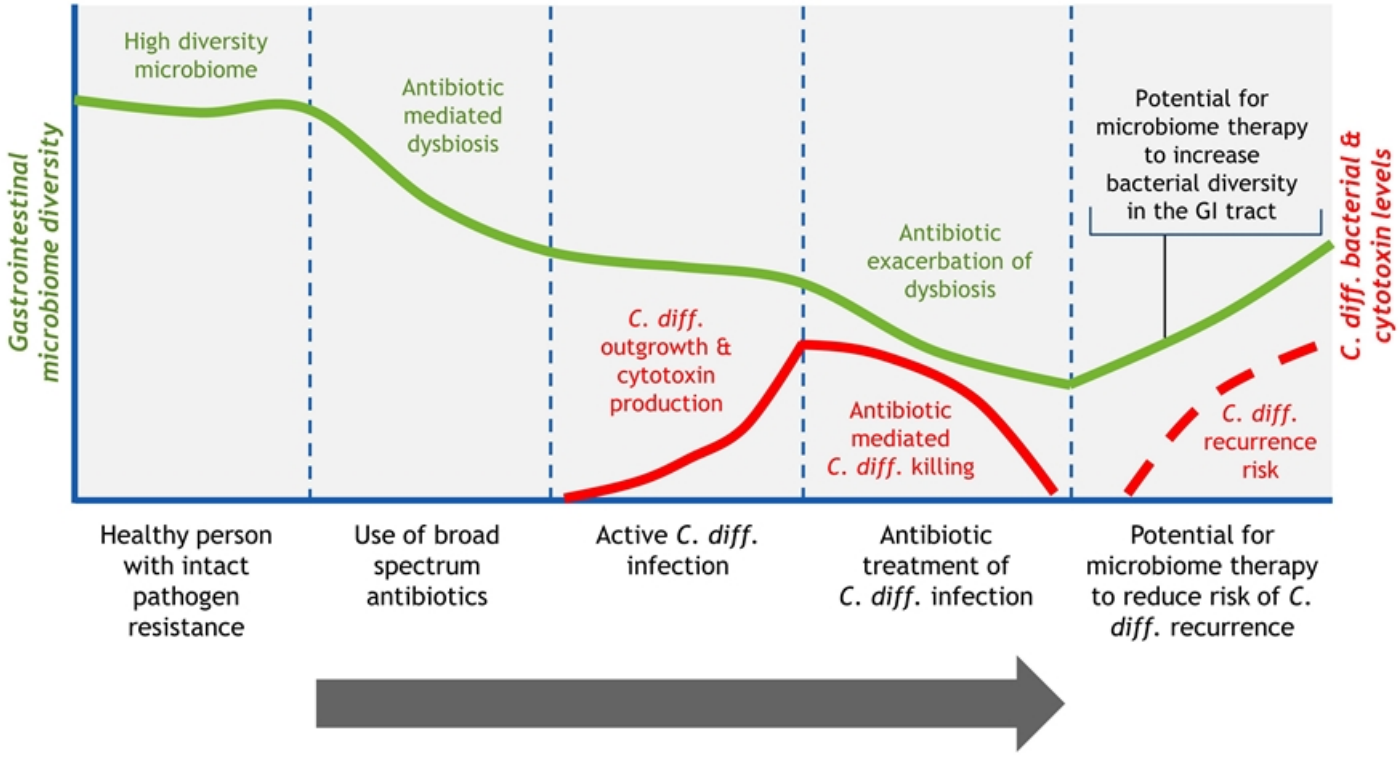
Sources: Leffler and Lamont, New England Journal of Medicine, 2015; Ma et al. Annals of Internal Medicine, 2017.

Microbiome therapeutic intervention – Race to Repair
Hypothetical patient course



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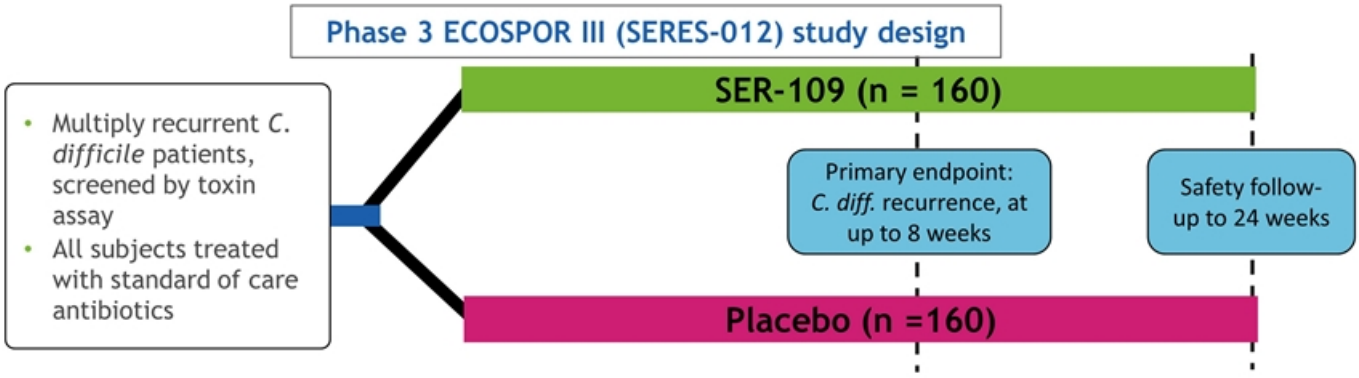
Phase 3 SER-109 ECOSPOR III study ongoing

- FDA Breakthrough and Orphan Drug designation
- Based on FDA feedback, ECOSPOR III designated as a Phase 3 study
- Phase 3 study incorporates key learnings from prior clinical efforts:
  - SER-109 dose is approximately 10-fold higher than dose used in Phase 2 study
  - *C. difficile* toxin assay to be used at study entry and for primary endpoint



SER-262: Synthetic, fermented Ecobiotic® therapeutic candidate for primary *C. difficile* infection

- Oral, microbiome therapeutic candidate comprising twelve strains of fermented, rationally-selected bacterial spores
- Bacterial species selected based on analysis of SER-109 Phase 1b microbiome data, biological and phylogenetic heterogeneity, and preclinical efficacy in *C. difficile* infection mouse model
- Data support a mechanism of action in which SER-262 strains compete for *C. difficile* preferred carbon sources

SER-262 strains utilize multiple carbon sources

Strain Designation	Sugars, sugar alcohols, glucosides																Carboxylic acids		
	fru	glu	man	rha	rib	xyl	cel	scr	tre	mal	pac	mtl	sor	NAG	glm	sal	for	suc	pyr
C. difficile																			
1																			
2																			
3																			
4																			
5																			
6																			
7																			
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10																			
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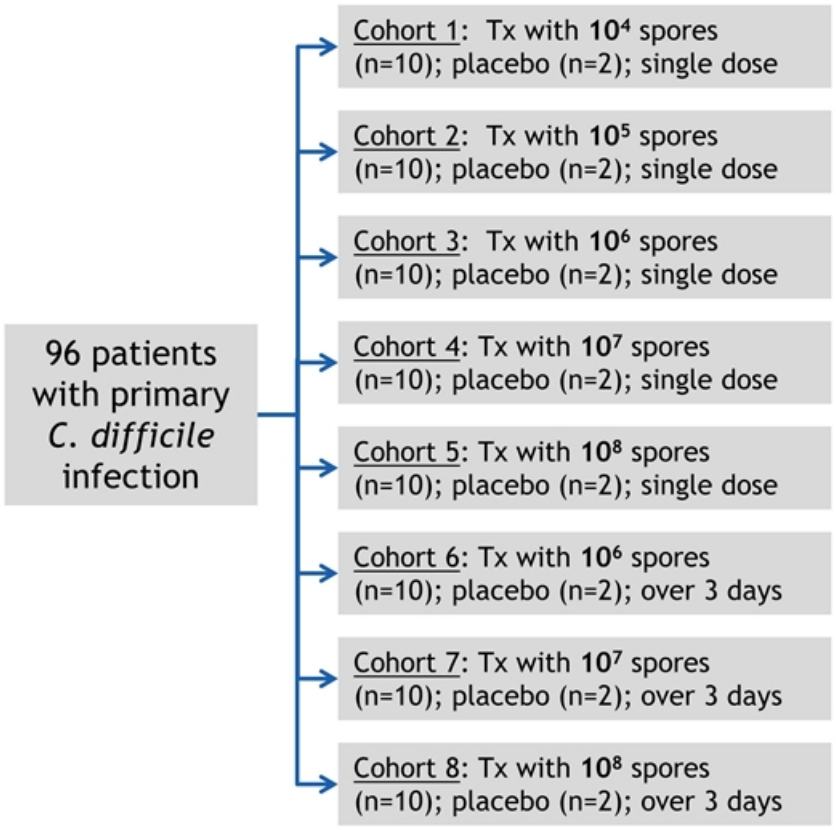
***In vitro* fermentation**

SER-262 Phase 1b dosing study in patients with primary C. difficile infection



Primary Objective

Safety and tolerability at 24 weeks

Relative risk of *C. difficile* recurrence compared to placebo at up to 8 weeks

Secondary Objectives

Microbiome engraftment

Time to *C. difficile* recurrence

Relative risk of recurrence at up to 4, 12, and 24 weeks after treatment

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Summary of SER-262 Phase 1b preliminary study results

- Preliminary unblinded clinical data available from seven of eight patient cohorts
- No drug related serious adverse events observed
- No relative differences observed in the risk of relative recurrence rates in SER-262 as compared to placebo
  - Study was not powered to detect statistically significant difference in recurrence rates
  - In the small group of placebo treated patients, no recurrences were observed
  - Low *C. diff.* recurrence rate observed in patients treated with vancomycin & SER-262, compared to those treated with metronidazole & SER-262, 4% versus 31%, respectively (p value = 0.0049). Prior randomized Phase 3 studies with vancomycin demonstrate a recurrence rate of ~25%
  - Data suggest that treatment with vancomycin, followed by SER-262, results in more robust and rapid engraftment compared to metronidazole, and thus may lead to corresponding clinical efficacy
- First ever demonstration of engraftment of a rationally-designed microbiome drug candidate
  - Detected a majority of SER-262 strains in patients receiving SER-262; detection of strains was variable across subjects. Of note not all bacterial species engraft with biologically sourced microbiome drug candidates or with FMT.
  - In patients where SER-262 engraftment was observed, global changes to the microbiome were also seen

SER-287 and Ulcerative Colitis

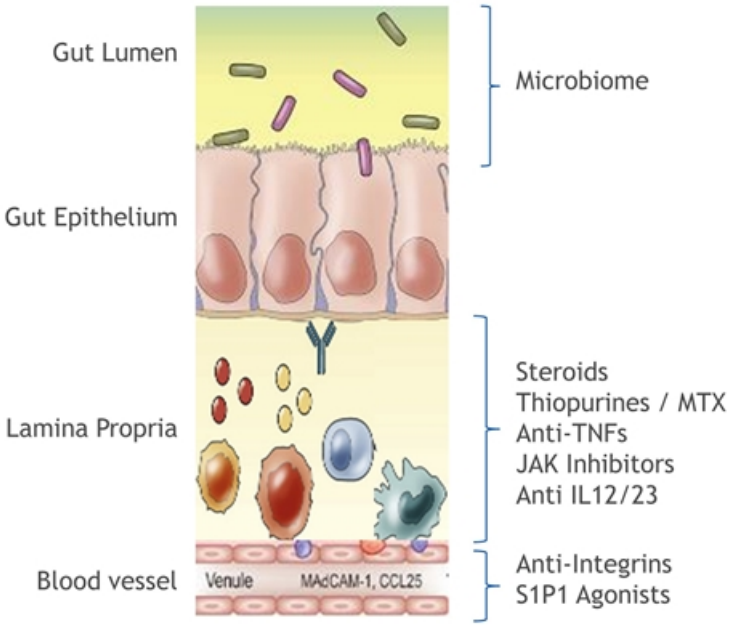
Leading the Microbiome Revolution

Inflammatory Bowel Disease (IBD) opportunity for new mechanistic approaches

Significant need for improved therapies

- Large US population: ~700K ulcerative colitis, ~700K Crohn's
- Fewer than ~1/3 of patients achieve remission with current therapies
- Many therapies are immunosuppressive, limiting widespread use

Modulation of the microbiome is an attractive therapeutic target for Ulcerative Colitis



- 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
- **Potentially synergistic effect with other UC products**

Microbiota transplantation provides clinical proof of concept

THE LANCET

Multidonor intensive faecal microbiota transplantation for active ulcerative colitis: a randomised placebo-controlled trial

Sudarshan Paramsothy, Michael A Kamm, Nadeem O Kaakoush, Alissa J Walsh, Johan van den Bogaerde, Douglas Samuel, Rupert W L Leong, Susan Connor, Watson Ng, Ramesh Paramsothy, Wei Xuan, Enmoore Lin, Hazel M Mitchell, Thomas J Borody

	Faecal microbiota transplantation (n=41)	Placebo (n=40)	Risk ratio (95% CI)	p value
Primary outcome				
Steroid-free clinical remission and endoscopic remission or response*	11 (27%)	3 (8%)	3·6 (1·1–11·9)	0·021

Selected references: Paramsothy *et al*. Lancet, 2017; Moayyedi *et al*. Gastroenterology, 2015;
Review article: Costello et al. Alimentary Pharmacology & Therapeutics, 2017.

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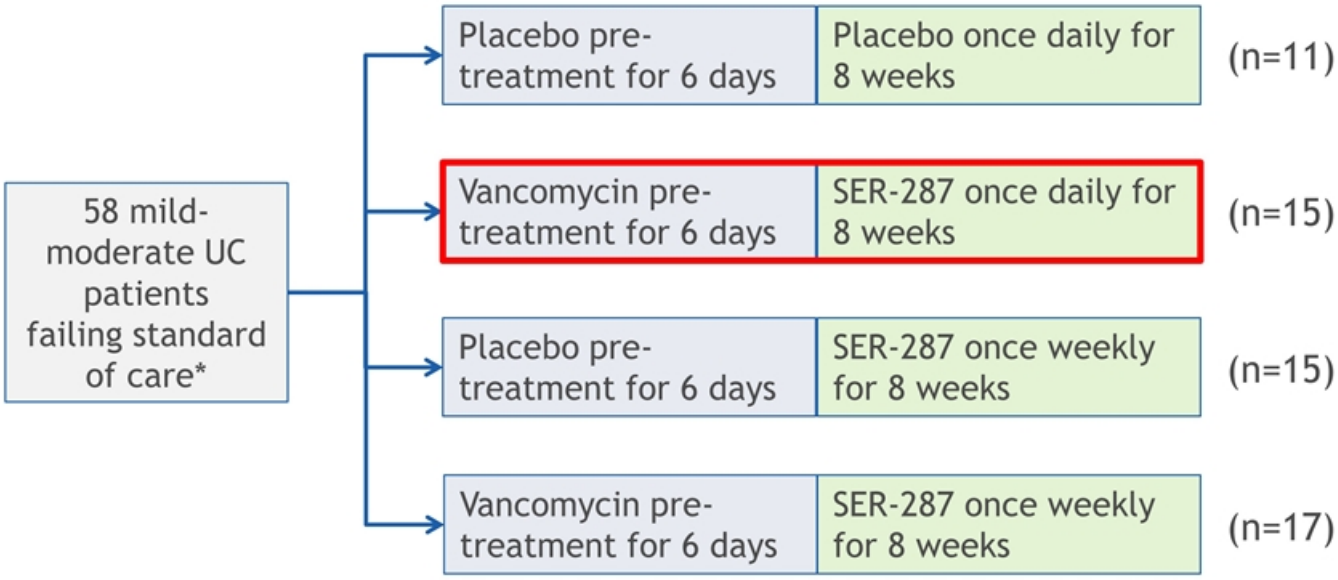
SER-287 Phase 1b Ulcerative Colitis study



* Study designed to enroll 55 patients, with 15 in SER-287 treatment arms and 10 in the placebo / placebo arm

SER-287 Phase 1b study endpoints

Primary Objectives

- Safety and tolerability
- Change in composition of intestinal microbiome at 8 weeks

Secondary Objectives

- Remission, endoscopic improvement, and response through measure of the total modified Mayo Score
- Change in serum and fecal biomarkers
- Pathologic changes in mucosal biopsies (i.e., histology)

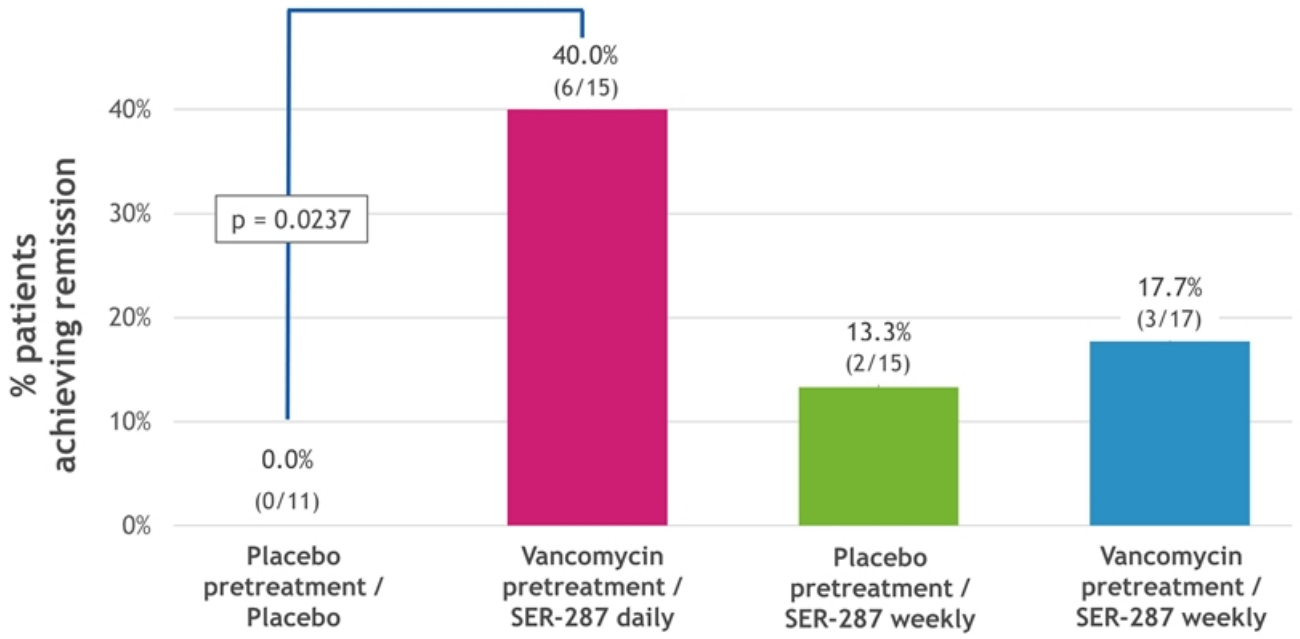
Clinical efficacy endpoints

Modified Mayo score components

1. Mucosal Appearance by endoscopy ***(Most objective)***
2. Stool Frequency
3. Rectal Bleeding
4. Physician Rating of Disease Activity

Endpoint	Protocol Definition
Remission	Total Modified Mayo Score <=2 and an endoscopic subscore of 0 or 1
Endoscopic Improvement	Decrease in endoscopic subscore of >=1
Response	Decrease of >=3 points in Total Modified Mayo Score from baseline, along with either a decrease of >=1 point in rectal bleeding subscore or absolute rectal bleeding subscore of 0 or 1

Significant and dose dependent impact on remission



Endoscopy readings were centrally read by blinded readers.
Data based on an intent to treat missing data counted as a failure analyses. Under observed data analysis, 1/10 (10%) and 6/15 (40%) patients in the placebo pretreatment / placebo and vancomycin pretreatment / SER-287 daily treatment arms, respectively, achieved remission and endoscopic improvement (p=0.1794). The observed analysis includes a patient in the placebo study arm who experienced a disease flare and was treated with corticosteroids (a protocol violation) prior to the end of treatment endoscopy

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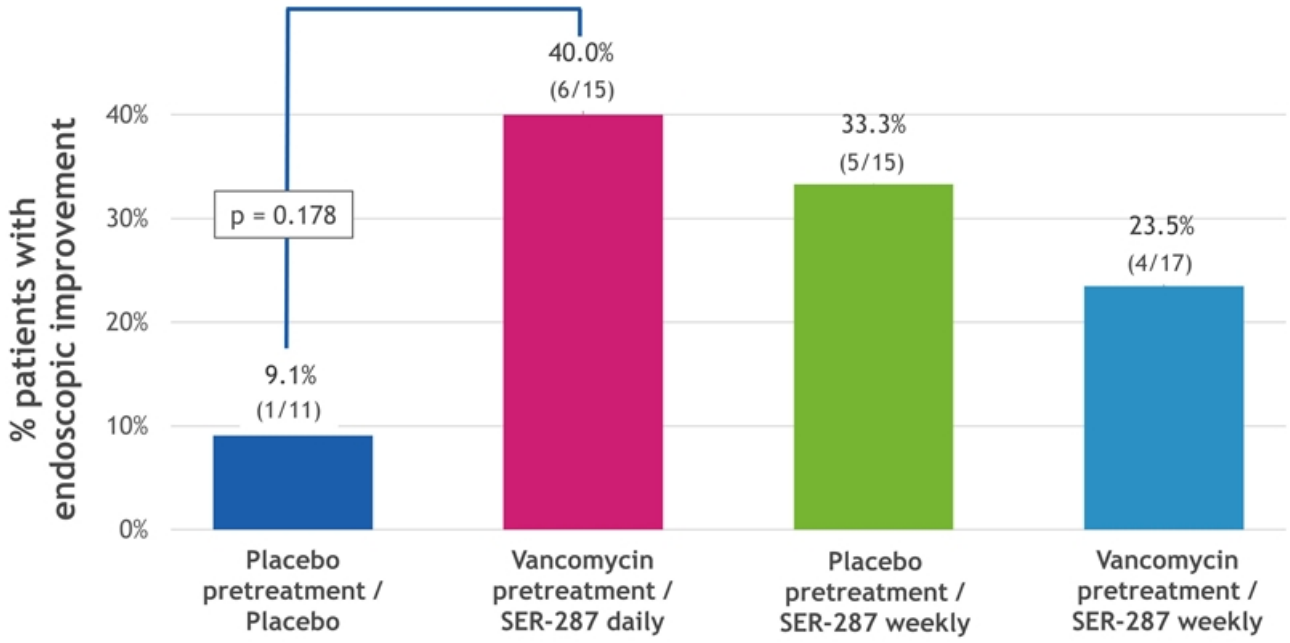
Dose dependent impact on endoscopic improvement



Endoscopy readings were centrally read by blinded readers.
Data based on an intent to treat missing data counted as a failure analyses. Under observed case analysis, 1/10 (10%) and 6/15 (40%) patients in the placebo pretreatment / placebo and vancomycin pretreatment / SER-287 daily treatment arms, respectively, achieved endoscopic improvement (p=0.1794). The observed analysis includes a patient in the placebo study arm who experienced a disease flare and was treated with corticosteroids (a protocol violation) prior to the end of treatment endoscopy

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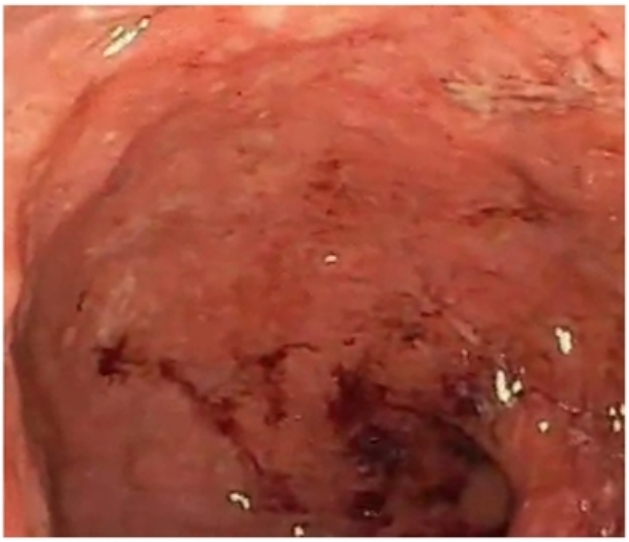
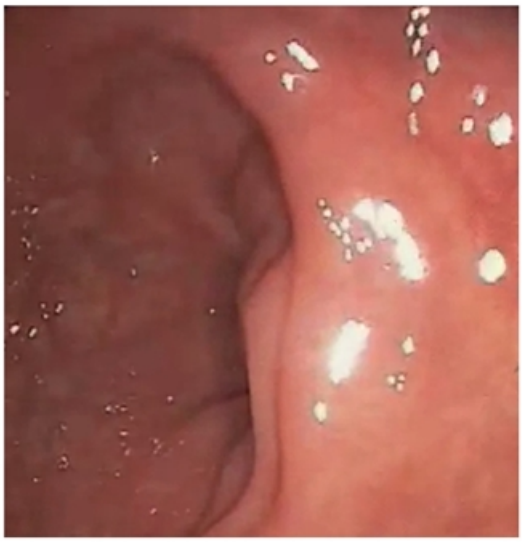
Illustrative endoscopy improvement findings from patient in SER-287 daily treatment arm

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



Post-treatment day 64 endoscopy



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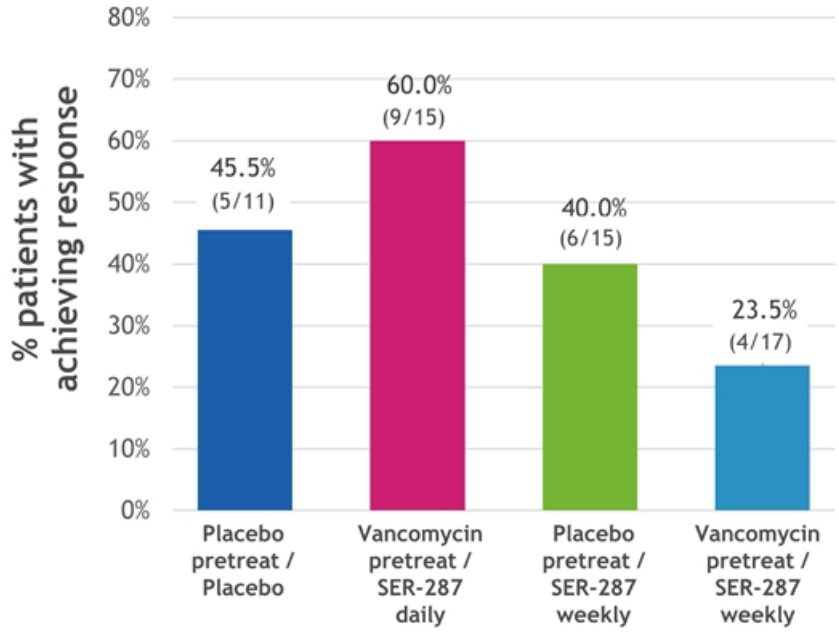
Response rate is less reliable endpoint; Not recommend by FDA as a primary endpoint for UC



High placebo response rate reported in other UC clinical studies using drugs with diverse mechanisms[1]

Ulcerative Colitis: Clinical Trial Endpoints

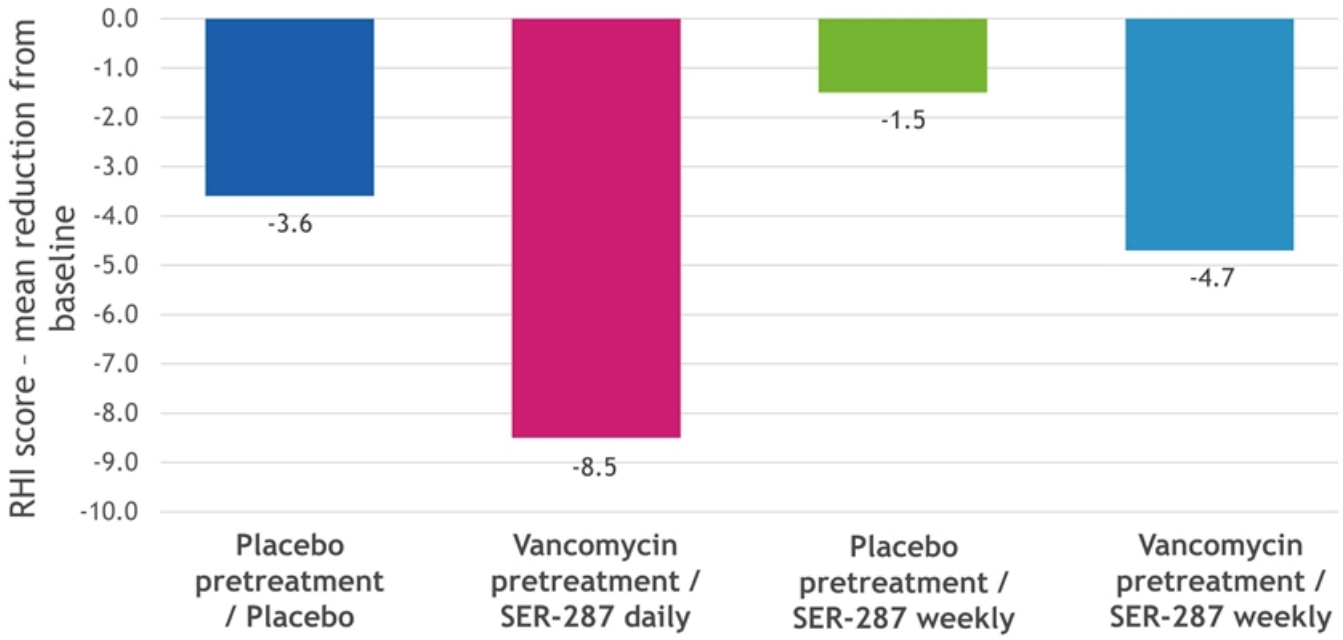
Guidance for Industry[2]

"We currently recommend a primary endpoint of clinical remission (responder definition based on Stool Frequency, Rectal Bleeding, and Endoscopy scores)."

1. Jairath V. et al., *Journal of Crohn's and Colitis*, 2016
2. August 2016 FDA draft guidance

Data based on an intent to treat missing data counted as a failure analyses. Under observed case analysis, 6/10 (60%) and 6/10 (60%) patients in the placebo pretreatment/placebo and vancomycin pretreatment/SER-287 daily treatment arms, respectively, achieved response (p=0.99). The observed analysis includes a patient in the placebo study arm who experienced a disease flare and was treated with corticosteroids (a protocol violation) prior to the end of treatment endoscopy

Histological healing RHI score change 8 weeks post SER-287 administration



Note: Intent to treat population, missing data equal failure
Subjects with normal histology at Baseline were excluded. Seres also evaluated potential biomarkers serum CRP and fecal calprotectin and observed no statistically significant impact.

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Favorable SER-287 Phase 1b safety profile

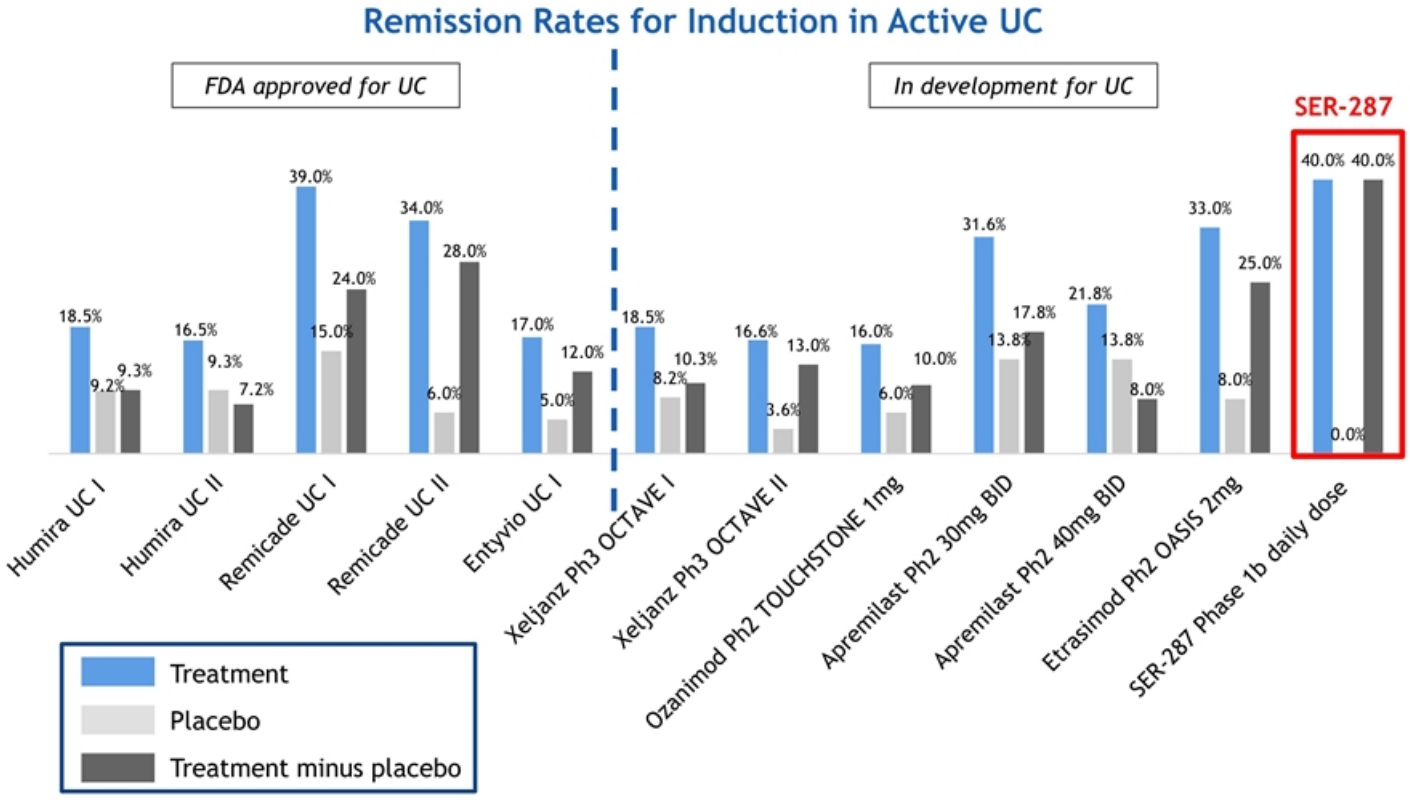
- SER-287 daily arm demonstrated a similar safety profile to placebo
- No serious drug-related adverse events
- No subject discontinuations in the SER-287 daily treatment arm
- Reduced gastrointestinal adverse events provide an independent assessment of efficacy with decreased disease activity
  - SER-287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

Analyses of post SER-287 treatment impact on disease activity

SER-287 Phase 1b patients were followed for up to 26 weeks post treatment:

- Of the 11 patients treated with SER-287 who achieved clinical remission, no patients experienced a disease flare in the 26 weeks following the end of treatment (0/11)

Favorable SER-287 efficacy relative to selected approved and development stage UC drugs



Adapted from Leerink Nov. 27 2017 report: Future of IBD: Category should double by 2023 despite GED-0301 disappointment; Note that study-to-study differences limit the ability to directly compare results.

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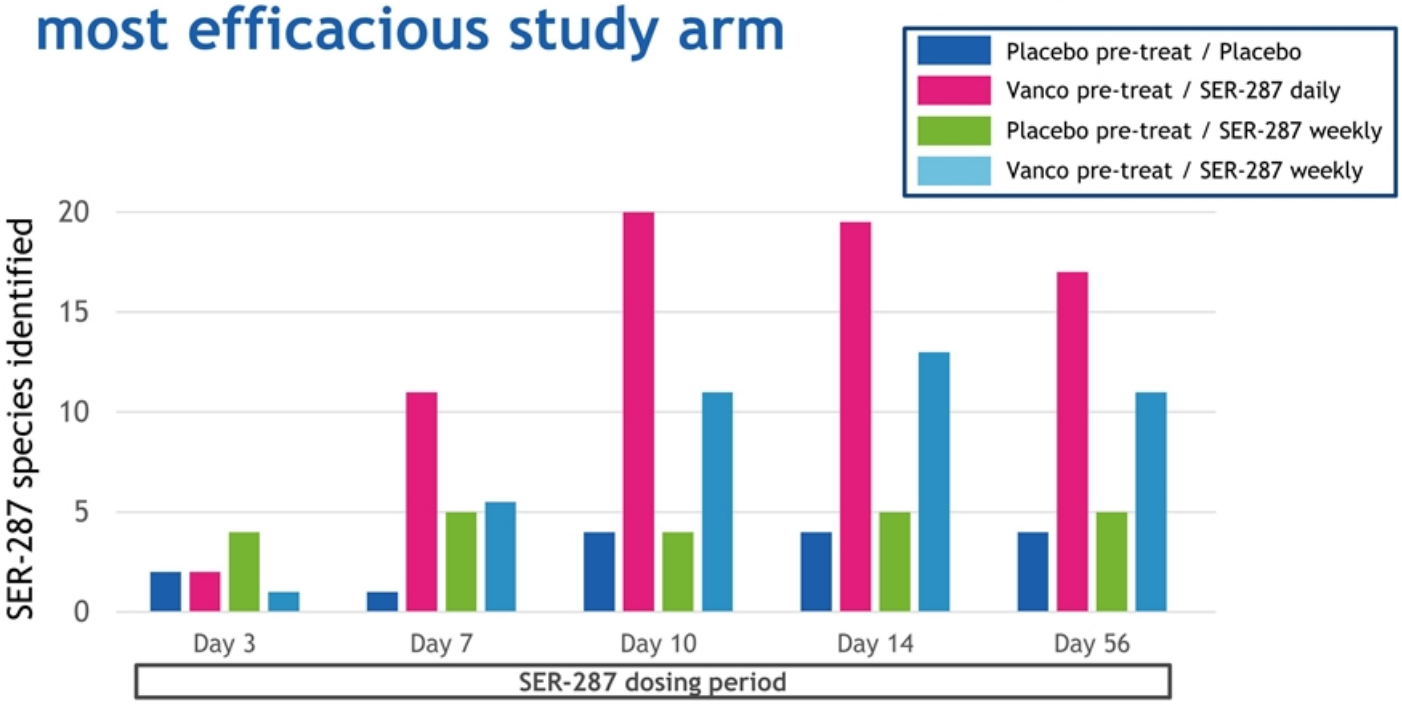
Robust SER-287 species engraftment; highest in most efficacious study arm



- Statistically significant engraftment in vanco pre-treat / SER-287 daily arm, versus placebo pre-treat / placebo arm, beginning at day 7 and maintained throughout the dosing period
- Statistically significant and dose-dependent engraftment in study arms with vanco pre-treatment / SER-287 versus placebo pre-treat arms
- Data supportive of vancomycin opening ecological niches for SER-287 engraftment

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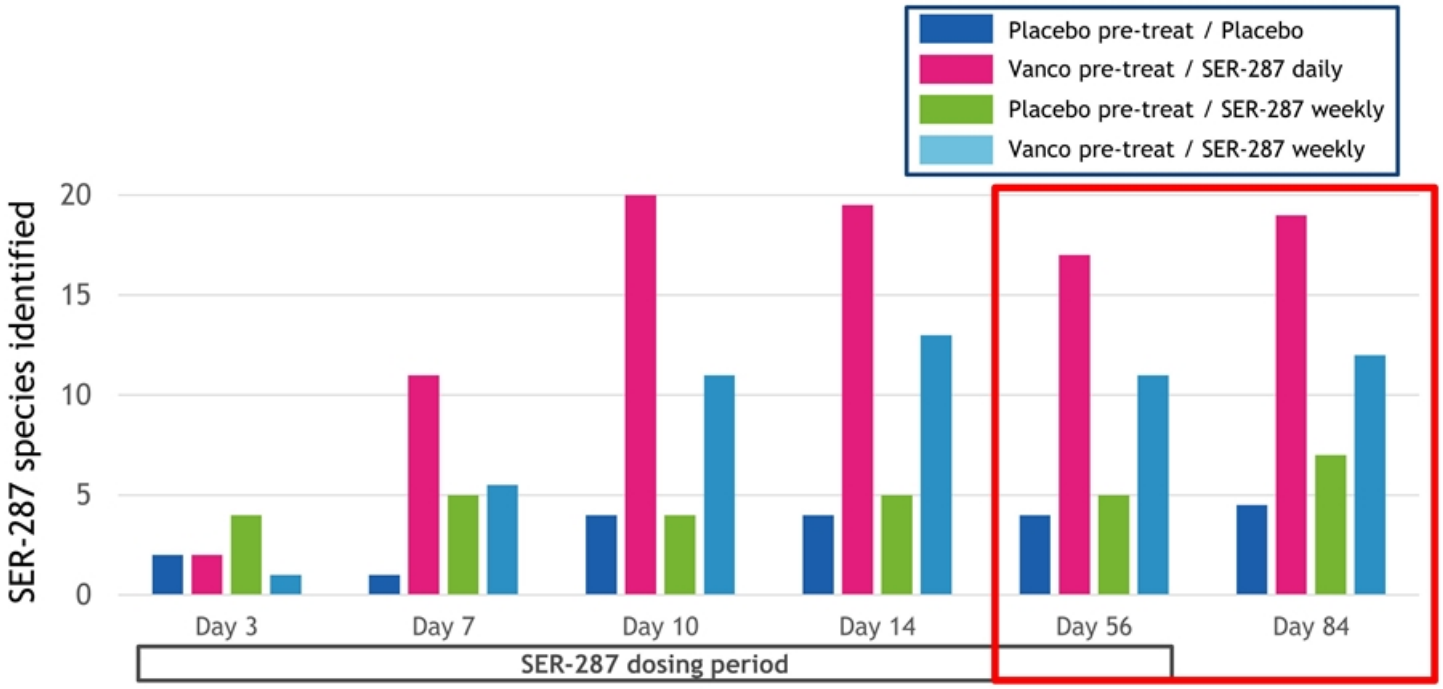
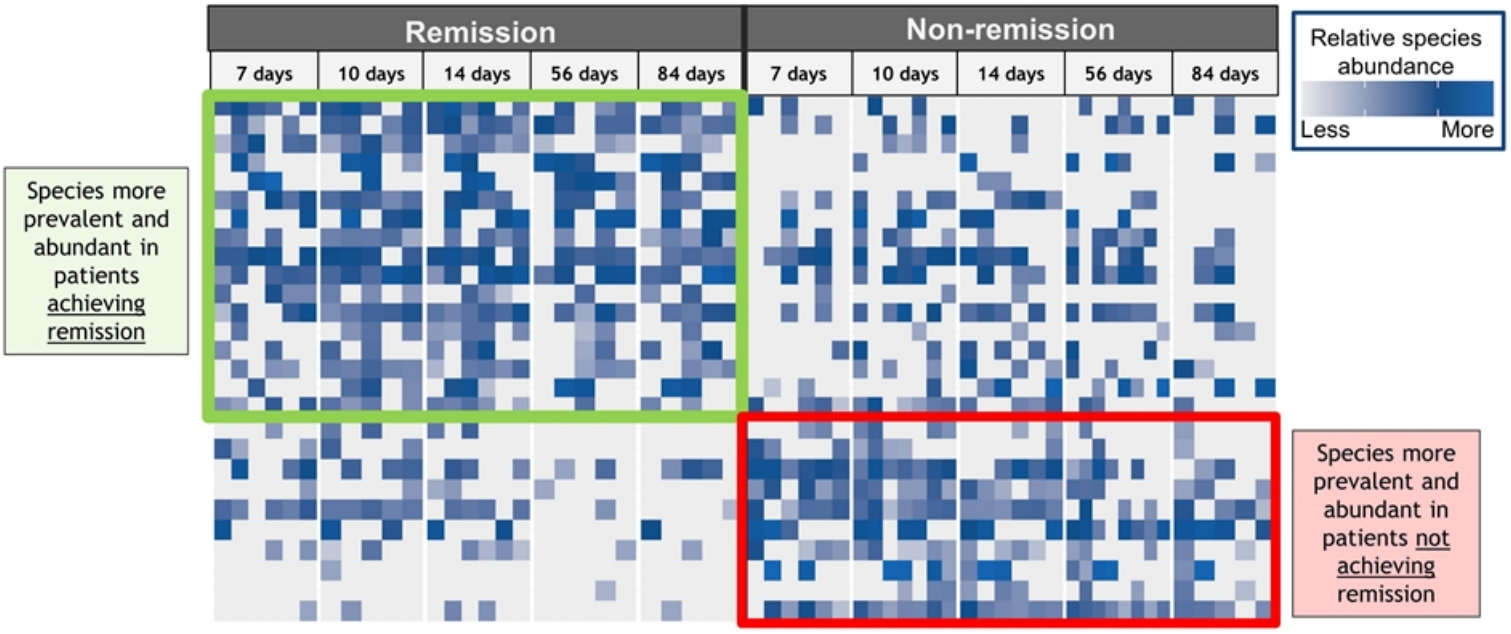
Durable SER-287 engraftment following dosing



- Statistically significant engraftment maintained through at least 4 weeks following SER-287 dosing

Specific bacterial species linked with remission

- Identified 27 species ecology statistically significantly correlated with remission
- Species include both SER-287 bacteria and others augmented by treatment



Relative abundance heatmap depiction of bacterial species prevalence from vanco pre-treat / SER-287 daily study arm patients. Each row represents a single bacterial species and each column represents a single patient. Shading of each square illustrates the relative abundance of each species.

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Advancing SER-287 clinical development

- Compelling Phase 1b results:
  - Beneficial impact on remission and endoscopic improvement
  - Favorable safety and tolerability profile
  - Microbiome data provide mechanistic support for clinical results and demonstrate species-level bacterial signatures associated with efficacy
- Obtained FDA Orphan Designation for Pediatric Ulcerative Colitis
- Rapidly advancing SER-287 clinical development:
  - Obtain FDA guidance
  - Expect to start next Ulcerative Colitis clinical study - mid-2018
  - Evaluate other opportunities (e.g. Crohn's disease, UC combination therapy)

SER-301: Synthetic fermented Ecobiotic® therapeutic candidate for inflammatory bowel disease

- Oral, mechanistically designed follow-on to SER-287
- Selection of SER-301 bacterial composition based on:
  - SER-287 study data (clinical and microbiome analysis)
  - Preclinical activity of microbiome compositions
- Rationally designed composition has shown activity in mouse model

SER-401 and Immuno-oncology

Leading the Microbiome Revolution

Gut microbiome composition impacts efficacy of checkpoint inhibitors in oncology patients

Science

Anticancer immunotherapy by CTLA-4 blockade relies on the gut microbiota

Marie Vétizou[1,2,3], Jonathan M. Pitt[1,2,3], Romain Daillère[1,2,3], Patricia Lepage[4], Nadine Waldschmit...

+ See all authors and affiliations

Science 27 Nov 2015:
Vol. 350, Issue 6264, pp. 1079-1084
DOI: 10.1126/science.aad1329

Science

Commensal *Bifidobacterium* promotes antitumor immunity and facilitates anti–PD-L1 efficacy

Ayelet Sivan[1,*], Leticia Corrales[1,*], Nathaniel Hubert[2], Jason B. Williams[1], Keston Aquino-Michaels[3], Zachary...

+ See all authors and affiliations

Science 27 Nov 2015:
Vol. 350, Issue 6264, pp. 1084-1089

Science

Gut microbiome influences efficacy of PD-1–based immunotherapy against epithelial tumors

Bertrand Routy[1,2,3], Emmanuelle Le Chatelier[4], Lisa Derosa[1,2,3], Connie P. M. Duong[1,2,5], Maryam Tidjani Alou[1,2,3], Romain D...

+ See all authors and affiliations

Science 02 Nov 2017:
eaan3706
DOI: 10.1126/science.aan3706

Science

Gut microbiome modulates response to anti–PD-1 immunotherapy in melanoma patients

V. Gopalakrishnan[1,2,*], C. N. Spencer[2,3,*], L. Nezi[3,*], A. Reuben[1], M. C. Andrews[1], T. V. Karpinets[3], P. A. Prieto[1,†], D. Vicente[1]...

+ See all authors and affiliations

Science 02 Nov 2017:
eaan4236
DOI: 10.1126/science.aan4236

MD Anderson Cancer Center

SERES THERAPEUTICS

PARKER INSTITUTE for CANCER IMMUNOTHERAPY

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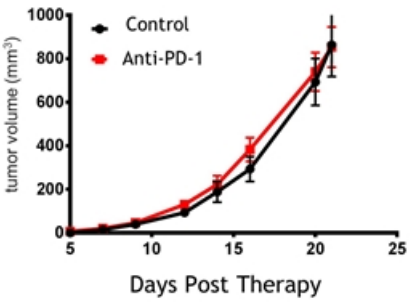
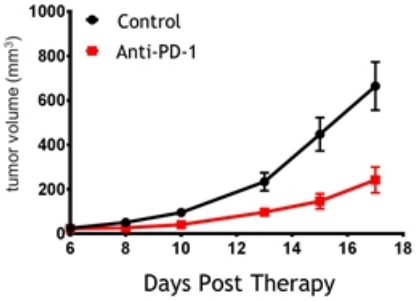
Modulation of the microbiome restores anti tumor efficacy and immune infiltration to anti-PD-1 therapy

Anti-tumor efficacy following anti-PD-1 administration into colonized mice

Tumor Growth Curves - Germ free

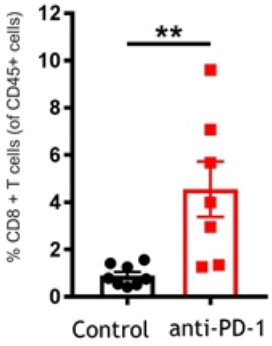


Tumor Growth Curves - Colonized

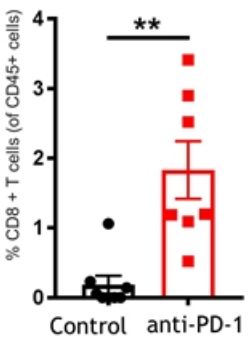


Immune cell infiltration into tumor following anti-PD-1 administration

CD8+ T cells



Dendritic cells



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Collaboration to advance microbiome therapeutic into immuno-oncology

- Planned placebo-controlled 3 arm clinical study to evaluate impact of checkpoint inhibitors plus adjunctive microbiome therapeutics on clinical outcomes in patients with advanced metastatic melanoma
- Planned start study in 2018
- Seres option to license foundational intellectual property from MD Anderson related to the use of bacteria in combination with checkpoint inhibitors

Broad IP portfolio and regulatory exclusivity

8 ISSUED US PATENTS + LICENSED IP*

- Demonstrates rationally designed ecologies of spores and microbes are patentable
- 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
- Claims related to SER-109/ *C. difficile* & colitis lead candidates through **2033**

SERES PATENT PORTFOLIO

15 Families of Applications

10 Nationalized

1 Pending PCT

4 Pending Provisionals

REGULATORY EXCLUSIVITY

12 years for new biological composition

10 years for new drug

* Includes additional IP rights including 1) a worldwide exclusive license to Memorial Sloan Kettering Cancer Center patent applications related to the use of bacterial compositions for treating HSCT patients and related areas, 2) exclusive option to license intellectual property rights from MD Anderson related to the use of bacteria in combination with checkpoint inhibitors.

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Upcoming Milestones

SER-109: Multiply recurrent *C. difficile* infection – Phase 3 ongoing

SER-287: Ulcerative colitis – Initiate new clinical study (mid-2018)

Immuno-oncology clinical study start (2018)

Focused R&D efforts to efficiently advance highest priority pipeline programs toward meaningful value inflection points

Resources to operate for at least the next 12 months

Balance Sheet	As of March 31, 2018
Cash, cash equivalents and investments	$122 M

Cash operating guidance provided May 9, 2018

Appendix

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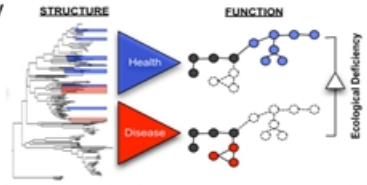
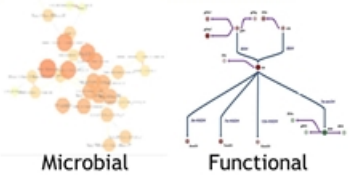
Leading the Microbiome Revolution

Differentiated microbiome R&D platform

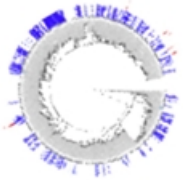
Computational discovery using **human clinical datasets** to allow rational design of microbiome drugs in multiple therapeutic areas



***In silico* derivation** of "backbone" functional microbial ecologies



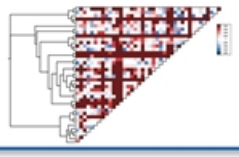
Vast microbial strain library and commensal bacteria culturing know-how



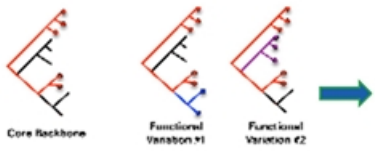
>35,000 isolates representing >450 species & broad phylogenetic breadth

Rationally Designed Ecologies

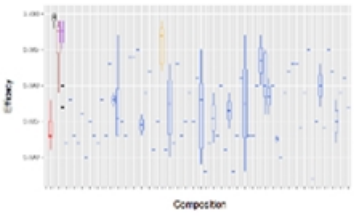
Genomic & phenotypic characterization of microbial strains & compositions using high resolution whole metagenomic shotgun sequencing, resolving down to strain level



Disease targeted metabolic, immunological, & efficacy screens for *"R-group"* informed lead optimization



Phylogenetically-informed "R-group" Optimization

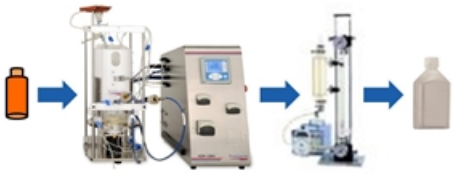


Only company with clinical stage development programs giving insights into how to therapeutically alter the microbiome to treat multiple diseases

CMC platform enables manufacture of cGMP-compliant, oral, microbiome therapeutic candidates

Fermentation of anaerobic and spore-forming microbes

Synthetic candidates



cGMP Isolation of spores from complex biological materials

Biologically sourced

Novel germination, cultivation, and sporulation strategies enabling increased culture diversity and productivity

Formulation, filling, delivery & packaging enabling active product delivery

Novel QC assays for safety, identity, strength, purity, and quality including microbiome characterization

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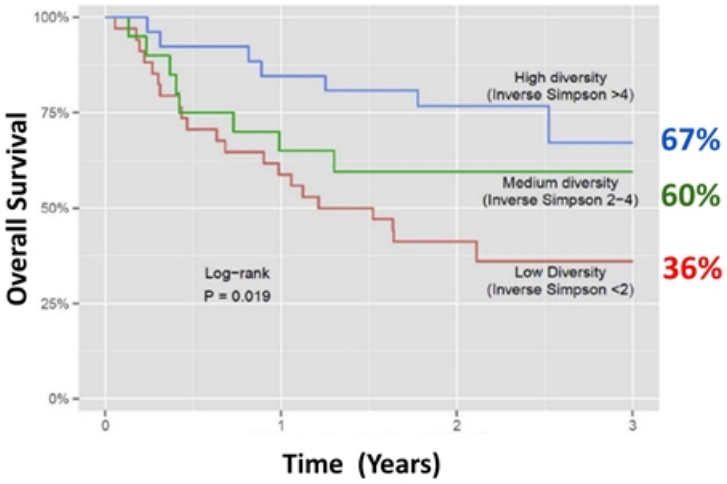
SER-155: Ecobiotic® therapeutic candidate to improve transplantation outcomes

- Ecobiotic® therapeutic candidate to improve outcomes in patients receiving allogeneic hematopoietic stem cell transplantation (HSCT) or solid organ transplants
- Designed to reduce both infection risk, and Graft vs. Host Disease (GvHD)

Patient Microbiome Diversity Correlates with Mortality Risk[3]



CARB-X
Xccelerating global antibacterial innovation

Nov. 2017: CARB-X grant of up to $5.6M obtained to support preclinical research and early development work for SER-155

[1] Khanna *et al*, Journal of Infectious Disease 2016 [2] Jenq, *et al*, Biology of Blood and Marrow Transplantation 2015, [3] Taur, *et al*., Blood 2015.

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