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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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**CURRENT REPORT**  
Pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): March 16, 2017

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**SERES THERAPEUTICS, INC.**  
(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

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

**27-432690**  
(I.R.S. Employer  
Identification No.)

**200 Sidney Street**  
**Cambridge, MA 02139**  
(Address of principal executive offices) (Zip Code)

**(617) 945-9626**  
(Registrant's telephone number, include area code)

**N/A**  
(Former Name or Former Address, if Changed Since Last Report)

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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))
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**Item 2.02. Results of Operations and Financial Condition.**

On March 16, 2017, Seres Therapeutics, Inc. (the “Company”) announced its financial results for the year and quarter ended December 31, 2016. 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 March 16, 2017, the Company provided an updated corporate slide presentation in the “Investors & Media” portion of the Company’s website at [www.serestherapeutics.com](http://www.serestherapeutics.com). A copy of the slide presentation is attached as Exhibit 99.2 to this Current Report on Form 8-K. The slide presentation will be archived for approximately 30 days on the Company’s website.

The information in Item 7.01 of this Current Report on Form 8-K (including Exhibit 99.2) 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 exhibit relating to Item 2.02 shall be deemed to be furnished, and not filed:

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release issued on March 16, 2017
99.2	Corporate Deck as of March 16, 2017

**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: March 16, 2017

By: /s/ Eric D. Shaff

Name: Eric D. Shaff

Title: Chief Financial Officer and Executive Vice President

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release issued on March 16, 2017
99.2	Corporate Deck as of March 16, 2017





**Seres Therapeutics Reports Fourth Quarter and Full Year 2016 Financial Results and Provides Operational Progress Update**

*- Positive SER-109 Type B FDA meeting -*

*- Company to initiate new Phase 2 SER-109 clinical trial that, as agreed to by the FDA, may qualify as a Pivotal Study with achievement of a persuasive clinical effect and addressing FDA requirements -*

*- Continued pipeline progress with both SER-287 and SER-262 Phase 1b studies;  
Both data read-outs expected in the second half of 2017 -*

*- Conference call at 8 a.m. ET today -*

**CAMBRIDGE, Mass., March 16, 2017** —Seres Therapeutics Inc., (NASDAQ:MCRB), a leading microbiome therapeutics platform company, today reported fourth quarter and full year 2016 financial results and provided an update on multiple clinical programs, including three clinical-stage candidates seeking to address multiple serious medical indications. In a separate announcement today, Seres provided an update on plans to initiate a new SER-109 clinical study following its positive FDA Type B meeting.

“Seres has made important progress across all of our microbiome clinical programs,” said Roger J. Pomerantz, M.D., President, CEO and Chairman of Seres. “Following the completion of our comprehensive analyses of the SER-109 study results, we had very productive discussions with the FDA, in which we gained highly positive and constructive guidance on further SER-109 clinical development. If the new ECOSPOR III study achieves a persuasive clinical effect and addresses FDA requirements, we would expect to be able to file for SER-109 product registration.”

Dr. Pomerantz continued, “We also advanced our robust pipeline of microbiome clinical candidates and we anticipate the results of two Phase 1b clinical trials during the second half of this year, including our study of SER-287 in patients with ulcerative colitis and our study of SER-262, the first synthetically derived microbiome candidate to reach clinical development, in patients with primary *C. difficile* infection.”

## Recent Highlights and Events

- **Positive SER-109 Type B meeting with FDA and plan for new SER-109 clinical study:** Seres plans to initiate a new SER-109 clinical study (ECOSPOR III) in approximately 320 patients with multiply recurrent *Clostridium difficile* (*C. difficile*) infection. Study participants will be randomized 1:1 between SER-109 and placebo. Diagnosis of *C. difficile* infection for both study entry and for endpoint analysis will be confirmed by *C. difficile* cytotoxin assay. Patients in the SER-109 arm will receive a total SER-109 dose, administered over three days, approximately 10-fold higher than the dose used in the prior ECOSPOR study. ECOSPOR III will evaluate patients for 24 weeks and the primary endpoint will compare the *C. difficile* recurrence rate in subjects who receive SER-109 versus placebo at up to eight weeks after dosing. The FDA has agreed that this new trial may qualify as a pivotal study with achievement of a persuasive clinical effect and addressing FDA requirements, including clinical and statistical factors, an adequately sized safety database, and certain CMC parameters.
- **Key findings from SER-109 Phase 2 study analyses:** Seres announced the results of its in-depth analyses of the previously reported SER-109 Phase 2, eight-week clinical study data in patients with multiply recurrent *C. difficile* infection.
- **Ongoing progress with SER-287 Phase 1b study:** Seres continued to advance the SER-287 Phase 1b clinical study in subjects with mild-to-moderate ulcerative colitis who have failed first line therapy. SER-287 is a biologically sourced Ecobiotic® microbiome therapeutic candidate. Additional SER-287 Phase 1b study clinical sites were activated and increasing numbers of study subjects are being enrolled. Study results are expected in the second half of 2017.
- **Ongoing progress with SER-262 Phase 1b study:** Seres continued to advance the SER-262 Phase 1b clinical study in patients with primary *C. difficile* infection. SER-262, an Ecobiotic®, rationally-designed, fermented microbiome therapeutic candidate, is the first synthetically-derived and designed microbiome therapeutic candidate to reach clinical-stage development. Additional SER-262 Phase 1b study clinical sites were activated and increasing numbers of study subjects are being enrolled. Study results are expected in the second half of 2017.
- **Preclinical microbiome program research:** Seres continued to advance its preclinical efforts, working in collaboration with existing world-class academic researchers, including projects targeting hematopoietic stem cell transplantation and immuno-oncology treatment, with Memorial Sloan Kettering Cancer Center; liver diseases including primary sclerosing cholangitis and Non-Alcoholic Steatohepatitis (NASH), with Mayo Clinic; inflammatory bowel disease (IBD) and rare genetic metabolic diseases, with the University of Pennsylvania, Medical University of Graz, Austria and the Research Institute of St. Joseph's Hamilton; and obesity and metabolic syndrome, with the Massachusetts General Hospital of the Harvard Medical School.
- **Additional microbiome patent issued:** Seres continued to strengthen its intellectual property estate related to microbiome therapeutics. The United States Patent and Trademark Office issued a new patent (#9,585,921), assigned to Seres, covering compositions for treating multiple gastrointestinal diseases associated with dysbiosis of the microbiome.

- **Manufacturing facility completed:** Seres continued to broaden its differentiated microbiome therapeutic development capabilities. The construction of a new facility capable of the manufacture and formulation of microbiome therapeutic candidates was completed and is now fully operational.

## **Financial Results**

The company reported a net loss of \$91.6 million for the full year, as compared to a net loss of \$54.8 million for the prior year. Seres reported a net loss of \$25.3 million for the fourth quarter of 2016, as compared to a net loss of \$19.6 million for the same period in 2015. The increase in fourth quarter net loss was driven primarily by continued growth in clinical and development expenses as well as increased headcount, and ongoing development of the company's microbiome therapeutics platform. The fourth quarter net loss figure was inclusive of \$3.0 million in revenue recognized associated with the company's collaboration with Nestlé Health Science.

Research and development expenses for the full year of 2016 were \$82 million, as compared to \$38.1 million for the prior year. R&D expenses for the fourth quarter of 2016 were \$20.3 million, as compared to \$13.9 million for the same period in 2015. The increase in R&D expense was primarily due to expenses related to the company's microbiome therapeutics platform, the clinical development of SER-109, SER-262 and SER-287, as well as the company's preclinical programs.

General and administrative expenses for the full year of 2016 were \$32.6 million, as compared to \$16.8 million for the prior year. G&A expenses for the fourth quarter of 2016 were \$8.5 million, as compared to \$5.9 million for the same period in 2015. The increase in G&A expense was primarily due to increased headcount, an increase in professional fees, and facility expansion to support overall growth.

The decrease in cash balance during the quarter was \$26.5 million. Seres ended the fourth quarter with approximately \$230.0 million in cash, cash equivalents and investments.

## **Financial Expectations**

Based on the company's current operating plan, Seres expects that its existing cash resources will enable it to fund operating expenses and capital expenditure requirements, excluding cash inflows or outflows from future business development activities, through 2018.

## **Conference Call Information**

Seres' management will host a conference call today, March 16, 2017, at 8:00 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 84302413. To join the live webcast and access slides to accompany the conference call, please visit the "Investors and Media" section of the Seres website at [www.serestherapeutics.com](http://www.serestherapeutics.com).

## About Seres Therapeutics

Seres Therapeutics, Inc. 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 natural state of bacterial diversity and function is imbalanced. The Phase 2 study of Seres' program SER-109 has been completed in multiply recurrent *Clostridium difficile* infection. Seres' second clinical candidate, SER-287, is being evaluated in a Phase 1b study in patients with mild-to-moderate ulcerative colitis (UC). Seres is also developing SER-262, the first ever synthetic microbiome therapeutic candidate, in a Phase 1b study in patients with primary CDI. For more information, please visit [www.serestherapeutics.com](http://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 without limitation statements regarding our SER-109 development plans, the timing, design, and potential results of the ECOSPOR III study for SER-109, the potential for the ECOSPOR III study to qualify as a pivotal study, the timing and results of our clinical trials, the potential benefits of our business collaborations, dysbiosis as an underlying cause of disease, the benefits of any of our issued patents, and our cash flow and business forecasts.

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, which may not be available; our limited operating history; the unpredictable nature of our early stage development efforts for marketable drugs; the unproven approach to therapeutic intervention of our microbiome therapeutics; the lengthy and expensive process of clinical drug development, which has an uncertain outcome; potential delays in enrollment of patients which could affect the receipt of necessary regulatory approvals; potential delays in regulatory approval, which would impact the ability to commercialize our product candidates and affect our ability to generate revenue; any fast track or Breakthrough Therapy designation may not lead to faster development, regulatory approval or marketing approval; our possible inability to receive orphan drug designation should we choose to seek it; our reliance on third parties to conduct our clinical trials and the potential for those third parties to not perform satisfactorily; our reliance on third parties to manufacture our product candidates, which may delay, prevent or impair our development and commercialization efforts; our lack of experience in manufacturing our product candidates; the potential failure of our

product candidates to be accepted on the market by the medical community; our lack of experience selling, marketing and distributing products and our lack of internal capability to do so; failure to compete successfully against other drug companies; potential competition from biosimilars; failure to obtain marketing approval internationally; post-marketing restrictions or withdrawal from the market; anti-kickback, fraud, abuse, and other healthcare laws and regulations exposing us to potential criminal sanctions; recently enacted or future legislation; compliance with environmental, health, and safety laws and regulations; protection of our proprietary technology; protection of the confidentiality of our trade secrets; changes in United States patent law; potential lawsuits for infringement of third-party intellectual property; our patents being found invalid or unenforceable; compliance with patent regulations; claims challenging the inventorship or ownership of our patents and other intellectual property; claims asserting that we or our employees misappropriated a third-party's intellectual property or otherwise claiming ownership of what we regard as our intellectual property; adequate protection of our trademarks; ability to attract and retain key executives; managing our growth could result in difficulties; risks associated with international operations; potential system failures; the price of our common stock may fluctuate substantially; our executive officers, directors, and principal stockholders have the ability to control all matters submitted to the stockholders; a significant portion of our total outstanding shares are eligible to be sold into the market; unfavorable or lacking analyst research or reports; and we are currently subject to securities class action litigation. 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 November 10, 2016 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.

**SERES THERAPEUTICS, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except share and per share data)

	December 31,	
	2016	2015
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 54,539	\$ 73,933
Investments	138,704	131,149
Prepaid expenses and other current assets	5,126	2,528
Total current assets	198,369	207,610
Property and equipment, net	36,125	7,751
Long-term investments	36,752	—
Restricted cash	1,400	1,539
Total assets	<u>\$ 272,646</u>	<u>\$ 216,900</u>
<b>Liabilities and Stockholder's Equity</b>		
Current liabilities:		
Accounts payable	\$ 7,587	\$ 5,397
Accrued expenses and other current liabilities	10,812	5,523
Deferred revenue - related party	12,058	—
Total current liabilities	30,457	10,920
Lease incentive obligation, net of current portion	10,730	586
Deferred rent	2,072	—
Deferred revenue, net of current portion - related party	96,756	—
Total liabilities	<u>140,015</u>	<u>11,506</u>
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 10,000,000 shares authorized at December 31, 2016 and 2015; no shares issued and outstanding at December 31, 2016 and 2015	—	—
Common stock, \$0.001 par value; 200,000,000 shares authorized at December 31, 2016 and 2015; 40,355,753 and 39,082,017 shares issued and outstanding at December 31, 2016 and 2015	40	39
Additional paid-in capital	306,931	287,937
Accumulated other comprehensive income (loss)	(149)	30
Accumulated deficit	(174,191)	(82,612)
Total stockholders' equity	<u>132,631</u>	<u>205,394</u>
Total liabilities, convertible preferred stock and stockholders' equity	<u>\$ 272,646</u>	<u>\$ 216,900</u>

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

	Year Ended December 31,		
	2016	2015	2014
<b>Revenue:</b>			
Collaboration revenue - related party	\$ 21,766	\$ —	\$ —
Total revenue	<u>21,766</u>	<u>—</u>	<u>—</u>
<b>Operating expenses:</b>			
Research and development expenses	\$ 81,989	38,095	10,718
General and administrative expenses	<u>32,616</u>	<u>16,761</u>	<u>4,364</u>
Total operating expenses	<u>114,605</u>	<u>54,856</u>	<u>15,082</u>
Loss from operations	<u>(92,839)</u>	<u>(54,856)</u>	<u>(15,082)</u>
<b>Other income (expense):</b>			
Interest income	2,229	638	—
Interest expense	(969)	(555)	(209)
Revaluation of preferred stock warrant liability	<u>—</u>	<u>(7)</u>	<u>(1,418)</u>
Total other income (expense), net	<u>1,260</u>	<u>76</u>	<u>(1,627)</u>
Net loss	\$ (91,579)	\$ (54,780)	\$ (16,709)
Accretion of convertible preferred stock to redemption value	<u>—</u>	<u>—</u>	<u>(1,291)</u>
Net loss attributable to common stockholders	<u>\$ (91,579)</u>	<u>\$ (54,780)</u>	<u>\$ (18,000)</u>
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (2.30)</u>	<u>\$ (2.33)</u>	<u>\$ (2.67)</u>
Weighted average common shares outstanding, basic and diluted	<u>39,846,928</u>	<u>23,532,400</u>	<u>6,748,037</u>
<b>Other comprehensive income (loss):</b>			
Unrealized gain (loss) on investments, net of tax of \$0	(179)	30	—
Total other comprehensive income (loss)	<u>(179)</u>	<u>30</u>	<u>—</u>
Comprehensive loss	<u>\$ (91,758)</u>	<u>\$ (54,750)</u>	<u>\$ (18,000)</u>

**IR or PR Contact:**

Carlo Tanzi, Ph.D., Seres Therapeutics, 617-203-3467

Head of Investor Relations and Corporate Communications

ctanzi@serestherapeutics.com

###

# Corporate Overview



**SERES**  
THERAPEUTICS™

Leading the Microbiome Revolution

1

March 16, 2017



## Forward looking statements

Some of the statements in this presentation constitute “forward looking statements” under the Private Securities Litigation Reform Act of 1995. Such statements are subject to factors, risks and uncertainties (such as those detailed in the Company’s periodic 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.

# Investor highlights

## Opportunity

Expansive therapeutic opportunity utilizing the microbiome, a highly promising new area of medicine

## Platform

Seres is a leader in microbiome drug development with differentiated capabilities

## Pipeline

Broad pipeline in infectious, inflammatory and immune, metabolic and liver diseases

## Team

Experienced, accomplished leadership team

## Runway

Strong cash and strategic position

# 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 microbiome composition has been demonstrated to impact the efficacy and safety of immuno-oncology checkpoint inhibitors

## Metabolic Disease

- Effects on liver function, glucose utilization, and caloric availability
- Microbiome, and bacterial bile acid metabolism, 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: Vetizou M et al., Science 2015.; Sivan A. et al., Science 2015.; Dubin et al., Nature, 2016. NASH: Le Roy et al., Hepatology, 2012. Metabolic syndrome: Perry et al. Nature, 2016, Ridaura VK et al., Science 2013. Primary sclerosing cholangitis Tabibian JH et al., Hepatology, 2016



# Business strategy

## Focused clinical efforts

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

***C. difficile* infection**

**Inflammatory bowel disease**

## World class, differentiated, microbiome expertise

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

## Research in new therapeutic areas

- Collaborate with leading academic centers to advance research in promising therapeutic areas








# Robust microbiome therapeutics pipeline

			PRECLINICAL	PHASE 1	PHASE 2
★	SER-109	Recurrent <i>C. difficile</i>	Potentially Pivotal Study <sup>1</sup>		
⊗	SER-262	Primary <i>C. difficile</i>			
★	SER-287	Ulcerative colitis			
⊗	SER-301	Inflammatory Bowel Disease (IBD)			
⊗	SER-155	Prevention of infection and GVHD following hematopoietic stem cell or solid organ transplant			

⊗ Synthetically fermented   ★ Biologically sourced   ➡ Infectious   ➡ Inflammatory

## DISCOVERY EFFORTS

## ACADEMIC COLLABORATOR

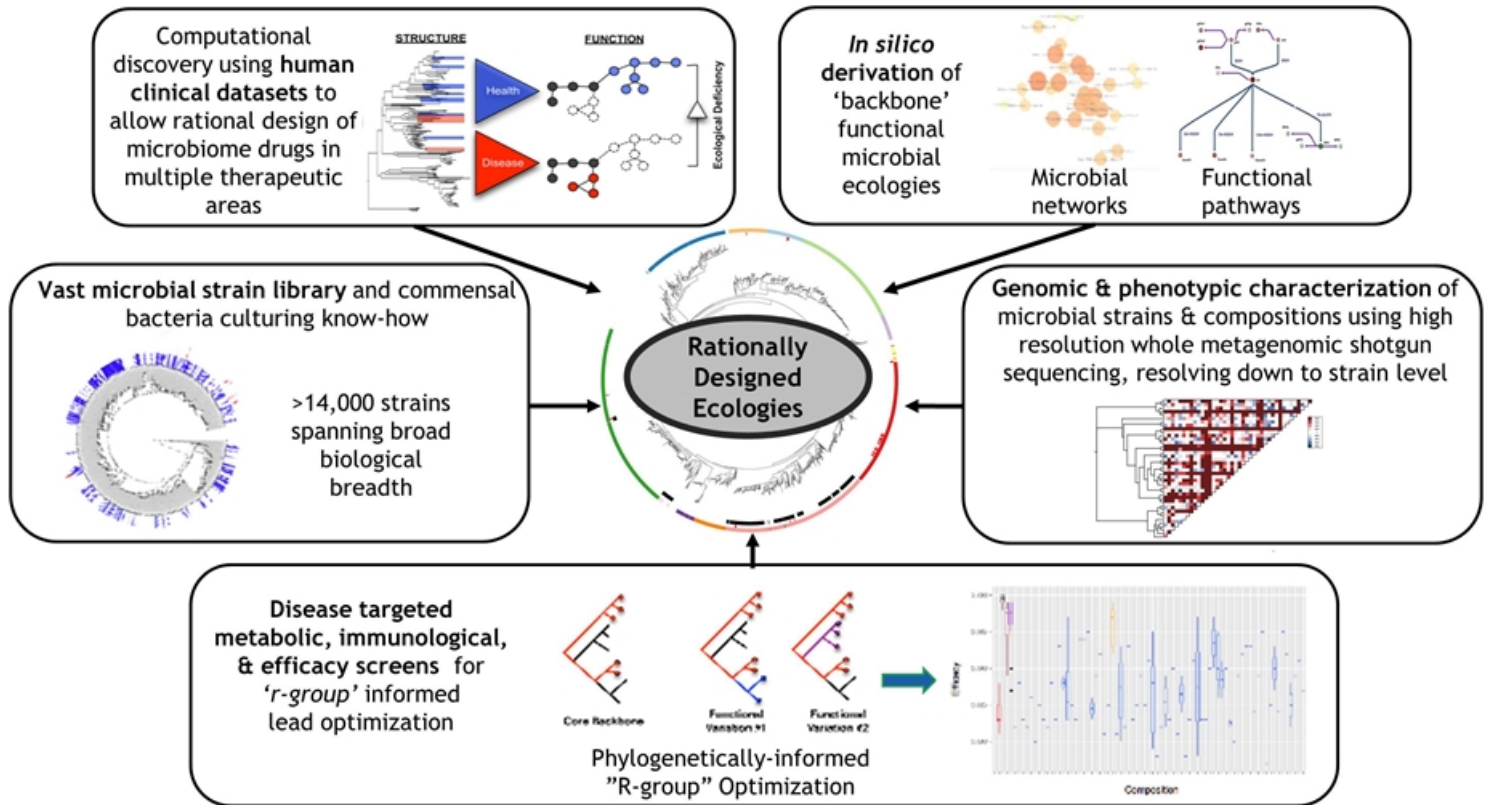
Immuno-oncology and hematopoietic stem cell transplant	 Memorial Sloan Kettering Cancer Center
Inflammatory bowel diseases	 Penn  St. Joseph's Healthcare Hamilton
Primary sclerosing cholangitis, NASH and other liver diseases	 MAYO CLINIC
Obesity/metabolic syndrome	 MASSACHUSETTS GENERAL HOSPITAL
Genetic metabolic diseases	 Penn

6 1. FDA has agreed that ECOSPOR III may qualify as pivotal study with achievement of a persuasive clinical effect and addressing FDA requirements, including clinical and statistical factors, an adequately sized safety database, and certain CMC parameters (See March 16, 2017 press release.

Note: Collaboration with Nestlé Health Science regarding *C. difficile* and IBD programs for markets only outside of North America



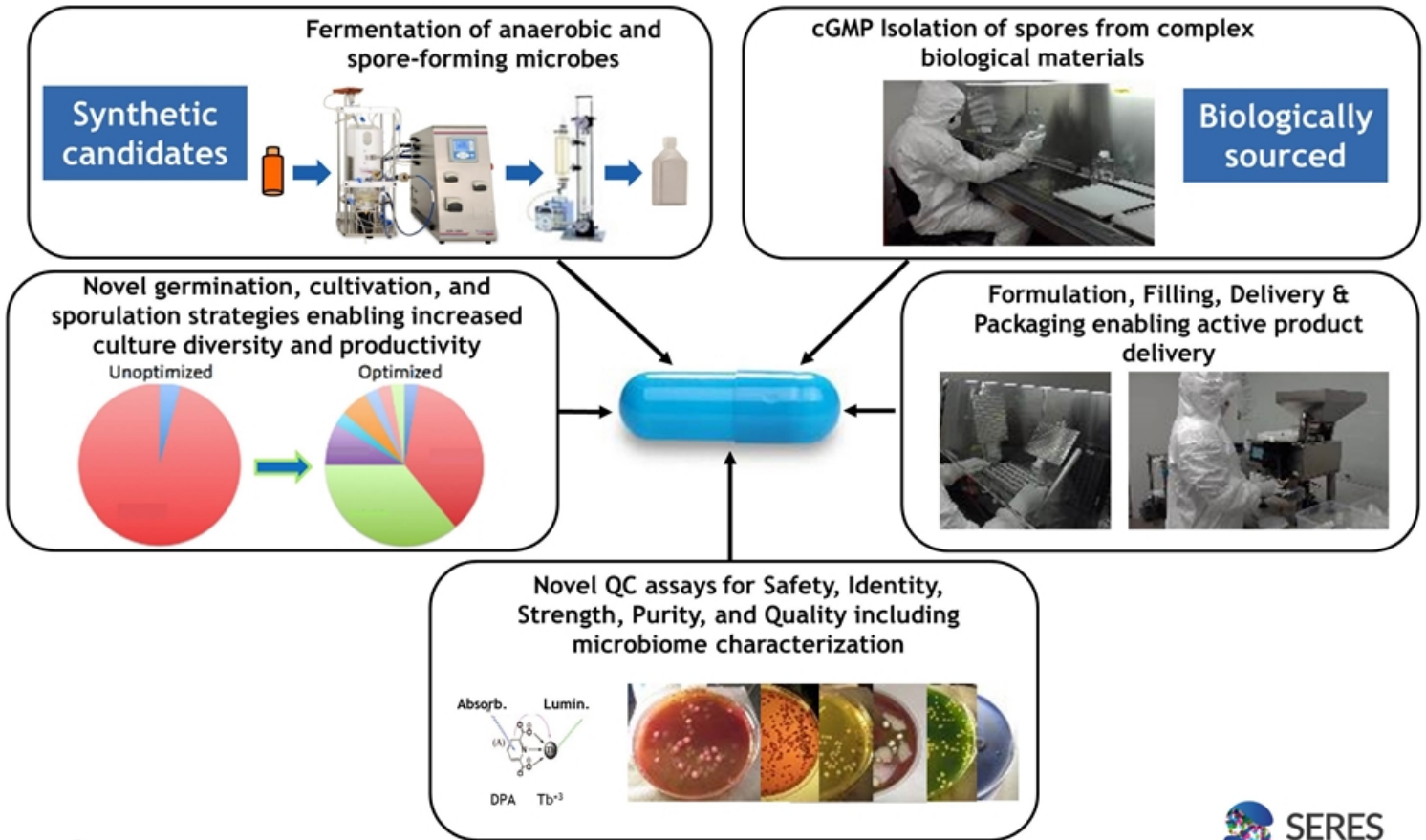
# Differentiated microbiome R&D platform



Only company with clinical stage microbiome development programs, human microbiome datasets, and clinical datasets before and after treatment



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



# *Clostridium difficile* Infection

## Overview and R&D Programs



9

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
- Infection caused by two-hit process: Disruption of gut microbiome and exposure to pathogenic spores
- ~25% of patients with primary CDI recur
- Risk of relapse increases with each recurrence



# Treatment landscape & disease burden

Modality	Characteristics
<b>Antibiotics</b> 	<ul style="list-style-type: none"> <li>• Perpetuates microbiome dysbiosis, creating <i>C. difficile</i> infection susceptibility</li> <li>• High recurrence rates, especially in recurrent cases</li> </ul>
<b>Fecal Transplant</b> 	<ul style="list-style-type: none"> <li>• Invasive procedures (colonoscopy or NG-tube)</li> <li>• Potential for transmission of human pathogens</li> <li>• No FDA approved products</li> </ul>
<b>Antibodies</b> 	<ul style="list-style-type: none"> <li>• Limited efficacy in Phase 3 studies</li> <li>• Does not address underlying microbiome dysbiosis</li> <li>• Complex administration, not patient-friendly</li> </ul>
<b>Vaccines</b> 	<ul style="list-style-type: none"> <li>• Unproven efficacy until Phase 3 is complete</li> <li>• Complex to identify and vaccinate elderly at-risk groups</li> </ul>

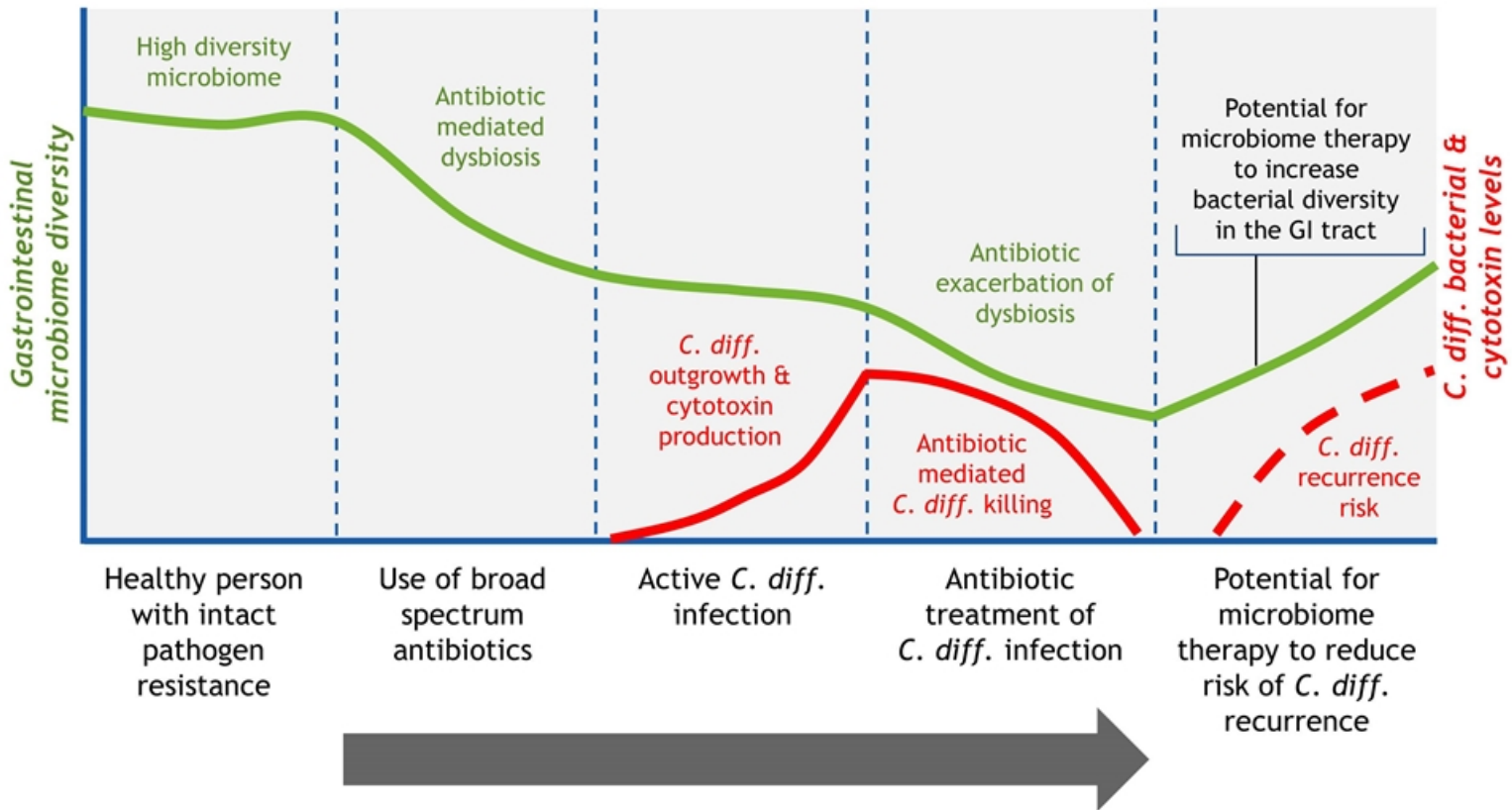
High Unmet Medical Need

- Economic burden as high as \$4.8B in U.S. acute-care facilities<sup>1</sup>
- Recurrent CDI episode ~\$18K<sup>2</sup>; >\$50K for cycle of recurrences

High Treatment Costs

# Dysbiosis and potential for therapeutic intervention

## Hypothetical patient course



## SER-109 Phase 1b and Phase 2 (8-week) study results

	Phase 1b Open Label, Single-Arm (n=30; 4 sites)	Phase 2 - Interim results Randomized, Placebo-Controlled (n=89; randomized 2:1; 28 sites)
<b>Primary Endpoint</b>	CDI recurrence up to 8 weeks defined by: >3 unformed stools over 1 day	CDI recurrence up to 8 weeks defined by: $\geq 3$ unformed stools/day for $\geq 2$ days
<b>Efficacy</b>	<ul style="list-style-type: none"> <li>• 13% recurrence per protocol</li> <li>• 3 of 4 patients with recurrent transient diarrhea, did not require antibiotic treatment and tested negative for <i>C. diff.</i> at 8 weeks</li> </ul>	<ul style="list-style-type: none"> <li>• SER-109: 44% (26 of 59) recurrence</li> <li>• Placebo: 53% (16 of 30) recurrence</li> <li>• Relative risk recurrence between arms not significant</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Most AEs were mild to moderate and transient</li> <li>• Most frequent AEs were gastrointestinal symptoms similar in nature to that seen in FMT trials or following CDI</li> </ul>	<ul style="list-style-type: none"> <li>• SER-109 is well-tolerated with an acceptable safety profile, it was associated with a small increase in gastrointestinal adverse effects, particularly diarrhea, compared to placebo (25% vs 14%)</li> </ul>

# SER-109 Phase 2 study post read-out analyses and findings

SER-109 analyses	Key issues addressed
Clinical	<ul style="list-style-type: none"><li>• Detailed analyses of clinical data</li><li>• Investigation of <i>C. difficile</i> diagnostics</li></ul>
Pharmacodynamics / microbiome analyses	<ul style="list-style-type: none"><li>• Investigation of drug activity</li></ul>
Chemistry, Manufacturing and Controls (CMC)	<ul style="list-style-type: none"><li>• Drug product distribution and handling</li><li>• Phase 1b to Phase 2 manufacturing and formulation changes, and potential impact on drug activity</li></ul>



## Key Findings: Factors contributing to SER-109 Phase 2 study result

**Diagnosis** - Misdiagnoses may have occurred both in some patients entering the trial, as well as for recurrences diagnosed during the study

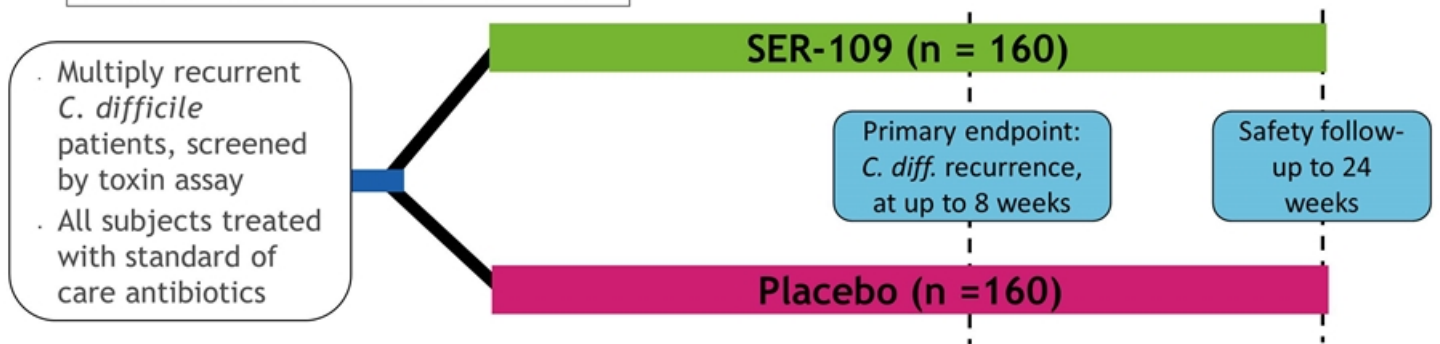
**Dose** - The dose used in the Phase 2 study may have been suboptimal in certain patients



# SER-109 ECOSPOR III: Potential Pivotal Study

- Positive Type B FDA meeting held to discuss available SER-109 data and proposed plans for further development
- Seres and FDA reach agreement on key design elements of a new SER-109 clinical study
- New trial may qualify as a Pivotal Study with achievement of a persuasive clinical effect and addressing FDA requirements, including clinical and statistical factors, an adequately sized safety database, and certain CMC parameters
- ECOSPOR III will utilize a SER-109 dose approximately 10-fold higher than the SER-109 dose used in the prior ECOSPOR study, administered over three days.

ECOSPOR III (SERES-012) study design



# SER-262: Synthetic Ecobiotic® drug candidate for primary *C. difficile* infection

- Oral, microbiome therapeutic candidate comprising twelve strains of fermented, rationally selected bacterial spores
- Bacteria 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

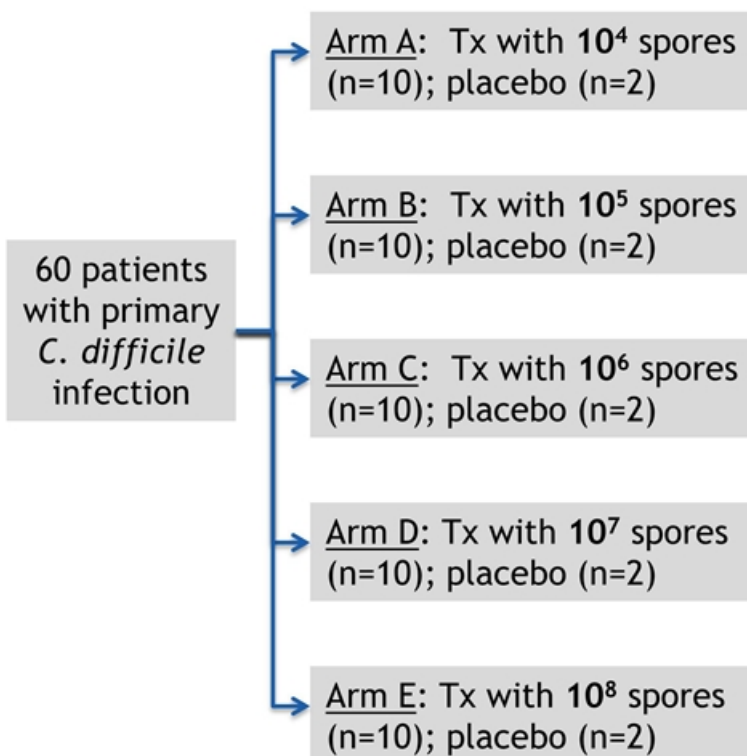
## SER-262 strains utilize multiple carbon sources

Strain Designation	Sugars, sugar alcohols, glucosides														Carboxylic acids		
	f	g	m	r	r	x	c	a	t	m	p	a	n	a	g	h	f
<i>C. difficile</i>																	
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

## *In vitro* fermentation



# SER-262 Phase 1b to provide insight into efficacy and safety 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

- Time to *C. difficile* recurrence
- Relative risk of recurrence at up to 4, 12, and 24 weeks after treatment



# Inflammatory Bowel Disease

## Overview and R&D Programs



Leading the Microbiome Revolution

# Multiple FMT studies provide proof of concept for microbiome therapy in ulcerative colitis

## THE LANCET

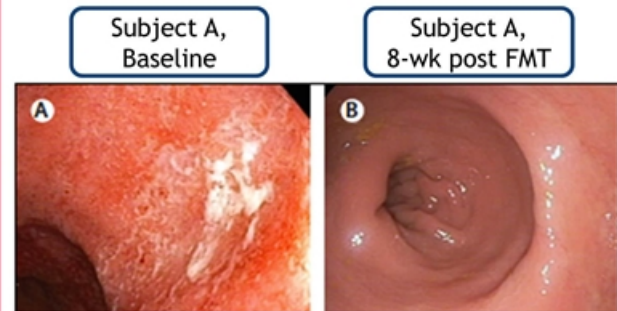
### Multidonor intensive faecal microbiota transplantation for active ulcerative colitis: a randomised placebo-controlled trial

Sudarshan Paramsothy, Michael A Kamm, Nadeem O Kaakoush, Alissa J Walsh, Johan van den Bogaerde, Douglas Samuel, Rupert W L Leong, Susan Connor, Wat son 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
<b>Primary outcome</b>				
Steroid-free clinical remission and endoscopic remission or response*	11 (27%)	3 (8%)	3.6 (1.1-11.9)	0.021
<b>Secondary outcomes</b>				
Steroid-free clinical remission†	18 (44%)	8 (20%)	2.2 (1.1-4.5)	0.021
Steroid-free clinical response‡	22 (54%)	9 (23%)	2.4 (1.3-4.5)	0.004
Steroid-free endoscopic remission§	5 (12%)	3 (8%)	1.6 (0.4-6.4)	0.48
Steroid-free endoscopic response¶	13 (32%)	4 (10%)	3.2 (1.1-8.9)	0.016

\*Total Mayo score ≤2, with all subscores ≤1, and ≥1 point reduction from baseline in endoscopy subscore.  
 †Combined Mayo subscores of ≤1 for rectal bleeding plus stool frequency. ‡Decrease of ≥3 points or ≥50% reduction from baseline (or both) in combined Mayo subscores for rectal bleeding plus stool frequency. §Mayo endoscopy subscore 0. ¶Mayo endoscopy subscore ≤1, with ≥1 point reduction from baseline.

**Table 2: Primary and secondary outcomes at week 8**



## SER-287 Inflammatory Bowel Disease (IBD) opportunity

### Significant unmet need for improved therapies for IBD

- Large US population: ~700K ulcerative colitis, ~700K Crohn's
- Only ~30% of patients respond to currently approved therapies
- Many therapies are immunosuppressive, limiting widespread use

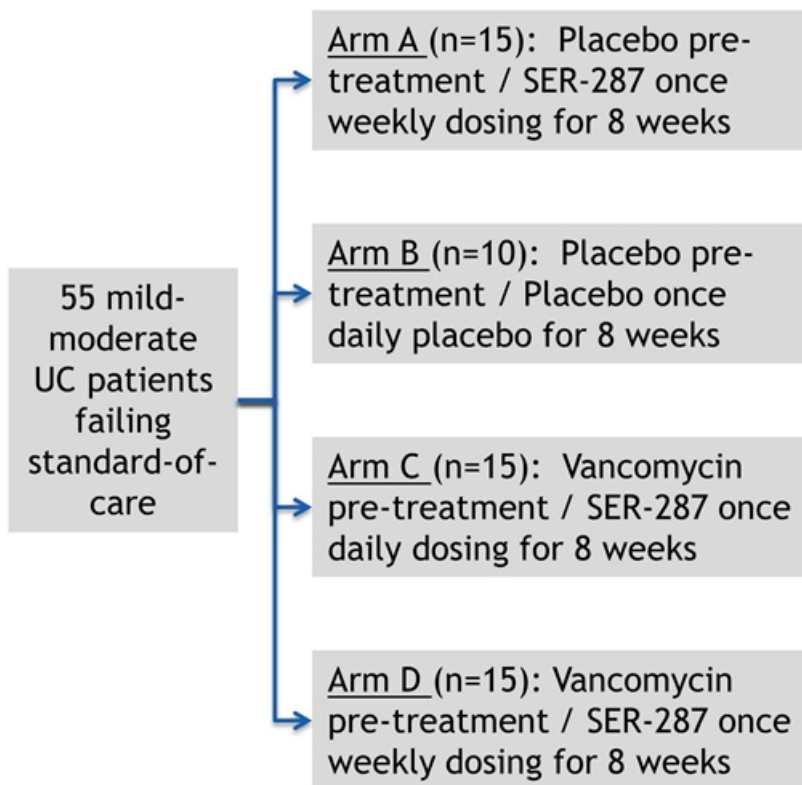
### SER-287 target profile:

- Oral
- Alternative mechanistic approach, potential mono or combo therapy
- Not expected to be immunosuppressive

### SER-287 development opportunity:

- Initial development as induction therapy for ulcerative colitis
- Potential development as UC maintenance therapy, Crohn's disease

# SER-287 Phase 1b to provide insight into efficacy and mechanism in UC patients



## Primary Objective

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

## Secondary Objectives

- Clinical responses, including complete remission, and endoscopic improvement
- Change in serum and fecal biomarkers
- Complement of microbiome metabolic pathways from stool, urine and blood
- Immunological and pathologic changes in mucosal biopsies

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

- Follow-on therapeutic candidate to SER-287 in preclinical development for inflammatory bowel disease
- Oral, microbiome therapeutic candidate comprising fermented, rationally selected bacteria
- Selection of SER-301 bacterial composition to be based on:
  - SER-287 study data (clinical and microbiome analysis)
  - Existing collaborations evaluating analysis of FMT ulcerative colitis clinical study data
  - Preclinical screening for microbial function, immunological assay, and animal models

# Additional R&D Opportunities



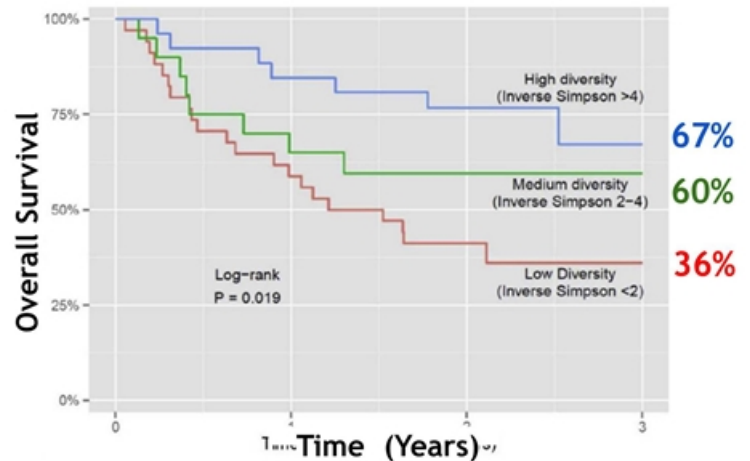
23

Leading the Microbiome Revolution

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

- Ecobiotic® synthetically derived 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)

HSCT Patient Microbiome Health Correlates with Overall Mortality Risk<sup>3</sup>





# Immuno-oncology microbiome therapeutic opportunity

## Therapeutic Objectives

- **To improve efficacy:** Modulate immune response, improve clinical response to therapeutic checkpoint inhibitors
- **To improve safety:** Reduce anti-CTLA4 induced colitis by providing microbial ecologies correlated with improved patient outcomes

### ASCO-SITC

#### Clinical Immuno-Oncology Symposium

February 23-25, 2017 | Hyatt Regency Orlando | Orlando, FL | #ImmunoSITC



Association of diversity and composition of the gut microbiome with differential responses to PD-1 based therapy in patients with metastatic melanoma.

#### Citation:

J Clin Oncol 35, 2017 (suppl 7S; abstract 2)

#### Author(s):

Vancheswaran Gopalakrishnan, Christine Spencer, Alexandre Reuben, Tatiana Karpinets, Diane Hutchinson, Kristi Hoffman, Peter A. Prieto, Michael T. Tetzlaff, Alexander Lazar, Michael A. Davies, Jeffrey E. Gershenwald, Robert R. Jenq, Patrick Hwu, Padmanee Sharma, James Patrick Allison, Andrew Futreal, Nadim Ajami, Joseph Petrosino, Carrie Daniel-MacDougall, Jennifer A. Wargo; UT MD Anderson Cancer Center, Houston, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; Baylor College of Medicine, Houston, TX; Memorial Sloan-Kettering Cancer Ctr, New York, NY



Intestinal microbiome analyses identify melanoma patients at risk for checkpoint-blockade-induced colitis

Krista Dubis<sup>1,2,3</sup>, Margaret K. Callahan<sup>4,5</sup>, Koyu Kim<sup>6</sup>, Koya Khanin<sup>7</sup>, Agnes Vals<sup>8</sup>, Ulan Ling<sup>9</sup>, Daniel No<sup>7</sup>, Asie Gobbome<sup>9</sup>, Eric Ullmann<sup>9</sup>, Curtis Hutterfove<sup>6,9</sup>, Eric G. Panter<sup>1,2,10,\*</sup> & Jedd D. Wolchok<sup>4,5,10,11,\*</sup>

### Science

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

Marie Vétizou<sup>1,2,3</sup>, Jonathan M. Pitt<sup>1,2,3</sup>, Romain Daillère<sup>1,2,3</sup>, Patricia Lepage<sup>4</sup>, Nadine Waldschmidt...

• See all authors and affiliations

Science 27 Nov 2015;  
Vol. 350, Issue 6264, pp. 1079-1084  
DOI: 10.1126/science.1257551

### Science

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









Ayelet Sivan<sup>1</sup>, Leticia Corrales<sup>1</sup>, Nathaniel Hubert<sup>2</sup>, Jason B. Williams<sup>3</sup>, Keston Aquino-Michaels<sup>3</sup>, Zachary...

• See all authors and affiliations

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



## Collaborations with leading institutes to advance R&D progress

Target Indication	Academic Collaboration
Inflammatory Bowel Disease	  
Immuno-oncology Therapeutics	
Hematopoietic Stem Cell Transplantation	
Primary Sclerosing Cholangitis, NASH and Other Liver Diseases	
Obesity and Metabolic Syndrome	
Rare genetic metabolic diseases (e.g., urea cycle disorders, hepatic encephalopathy)	

# Broad IP portfolio and regulatory exclusivity

## 7 ISSUED US PATENTS + LICENSED IP\*

- Demonstrates rationally designed ecologies of spores and microbes are patentable
- Composition of matter and method claims
- Claims related to SER-109/CDI & colitis lead candidates through **2033**

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### SERES PATENT PORTFOLIO

- 16** Families of Applications
  - 9** Nationalized
  - 2** Pending PCT
  - 5** Pending Provisionals

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### REGULATORY EXCLUSIVITY

- |   |  |
|---|--|
|  |  |
| <b>12</b> years for new biological composition                                    | <b>10</b> years for new drug   |

# Strong Financial Position

## Resources to operate through 2018

<b>Balance Sheet</b>	<b>As of Dec. 31, 2016</b>
Cash, cash equivalents and investments	\$230 M

<b>Income Statement</b>	<b>Latest Quarter, as of Dec. 31, 2016</b>
R&D	(\$20 M)
G&A	(\$8 M)
Net loss	(\$25 M)

<b>Common shares outstanding</b>	<b>40.4 M, as of Dec. 31, 2016</b>
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## Upcoming value-driving milestones

SER-109: Initiation of further clinical development

SER-287: Ulcerative Colitis - Phase 1b read-out (H2 2017)

SER-262: Primary *C. difficile* infection - Phase 1b read-out (H2 2017)

Advancing new pipeline programs in infectious diseases, inflammatory and immune diseases (including immuno-oncology), metabolic and liver diseases