SERES THERAPEUTICS

JMP Securities Life Science Conference

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Forward Looking Statements

Some of the statements in this presentation constitute “forward looking statements” under the Private Securities Litigation Reform Act of 1995, including, but not limited to, our development plans, the promise and potential impact of any of our microbiome therapeutics or clinical trial data, the ability of our clinical trials to support approval, and the timing of clinical studies. 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-Q filed on May 7, 2021, 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.

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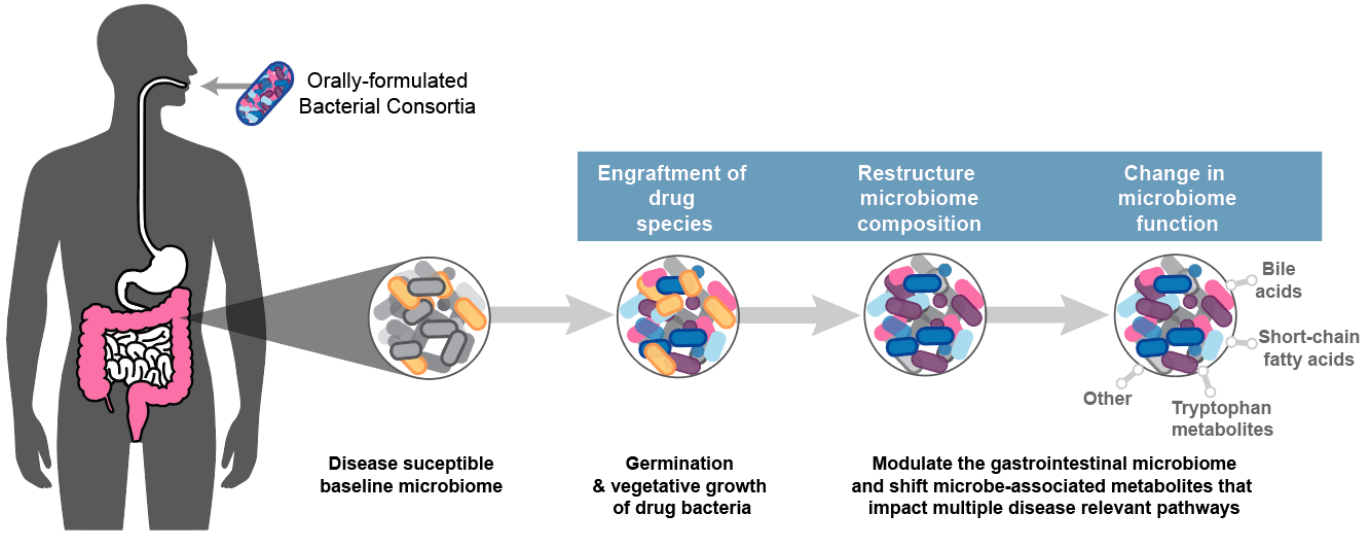
Pioneering the Development of Microbiome Therapeutics

Encapsulated consortia of commensal bacteria designed to target multiple disease-relevant pathways simultaneously



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Building on Microbiome Therapeutic Leadership Position

2020

- Landmark SER-109 Phase 3 success
- Clear demonstration of microbiome therapeutics as a new treatment modality

2021

- Enrolling SER-109 open label study in support of BLA; anticipate achieving target enrollment in Q3 2021
- SER-109 commercial readiness
- SER-287 Phase 2b clinical data readout mid-2021
- Advancing earlier stage pipeline candidates
  - SER-155 IND cleared
  - SER-301 Phase 1b enrollment ongoing
- Augmenting existing commercial-scale CMC capabilities
- Enhancing and applying new drug discovery capabilities into new disease areas

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C. difficile Infection is a Toxin-mediated Disease Leading to Inflammatory Colitis

***C. difficile* bacteria**

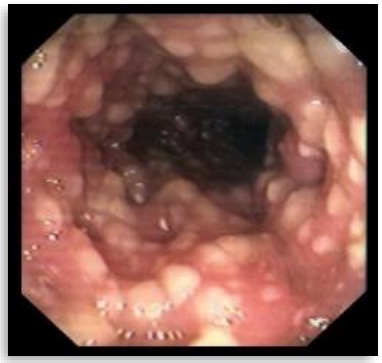
Hallmark of this bacterial disease is diarrhea

- Can be severe with 10-15 bowel movements in a day

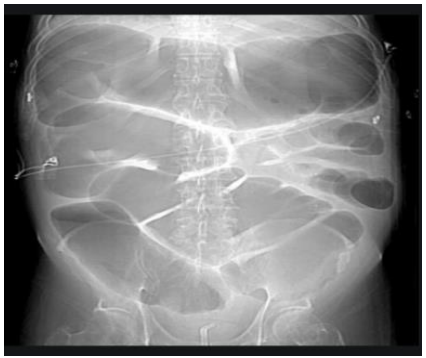
Other symptoms:

- Nausea, abdominal cramping
- Low grade fever
- Fatigue, weight loss

Severe disease



Pseudomembranous colitis



Toxic megacolon

Risk of perforation and death

Feuerstadt P Clin Transl Gastro 2015; Smits WK Nature Rev 2016

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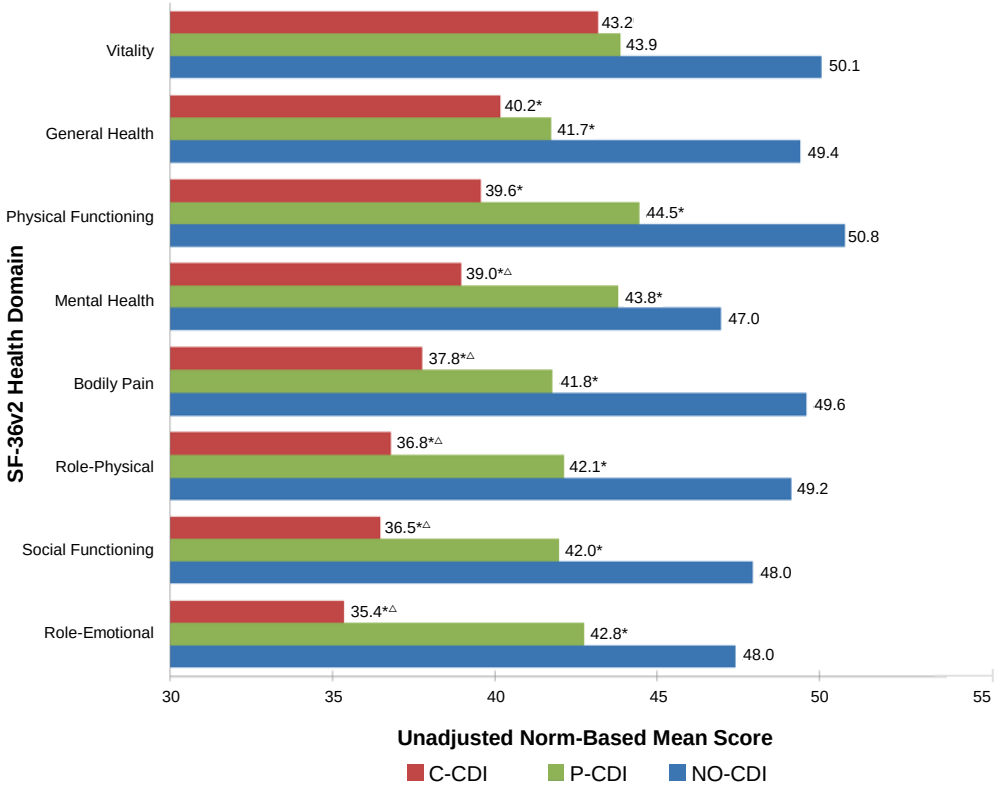
C. difficile Infection is Associated with Significantly Lower Quality of Life

Severe burden on patients

- Poor quality of life and loss of productivity due to disabling diarrhea

Survey of 350,370 participants with lower QOL in all health domains:

- General health and vitality
- Mental and emotional health
- Physical and social functioning



Heinrich *Dig Dis Sci 2018*

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Burden of *C. difficile* Infection on Healthcare Systems

ESTIMATED BURDEN OF *C. DIFF* INFECTION CASES: 462,100 (95% CI 428,600 to 495,600)

224,000
hospitalizations

20,500
in-hospital deaths

Greater incidence in patients ≥65 years
than all other age groups combined

ADVERSE IMPACT ON SHORT AND LONG-TERM OUTCOMES AT 30 DAYS

2.5x
risk of skilled nursing facility transfer

1.7x
risk long-term care facility transfer

1.77x
Increased risk of overall death and 10.9% attributable mortality

TREATMENT COSTS ESTIMATED >$5B ANNUALLY

Driven by length of hospital stay and readmissions with additional burden of CMS penalties

2-DAY
increase in hospital length-of-stay

25%
of *C. difficile* infection patients will experience ≥1 readmissions

$34,000
total annual cost of a recurrent *C. difficile* infection patient

1. Desai, *BMC Infectious Diseases* 2016; Zhang,*Clinical Infectious Diseases* 2018 Rodrigues *Infect Control Hosp Epidemiol* 2016; Lessa *N Engl J Med* 2015; Guh *N Engl J Med* 2020; Nitzan *World J Gastroenterol* 2013; Olsen *Infect Control Hosp Epidemiol* 2019.

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Current Treatment Options are Suboptimal

Primary *C. difficile* infection:
- Vancomycin or fidaxomicin associated with rapid recurrence in 25% within 1 to 3 weeks of antibiotic completion due to original strain

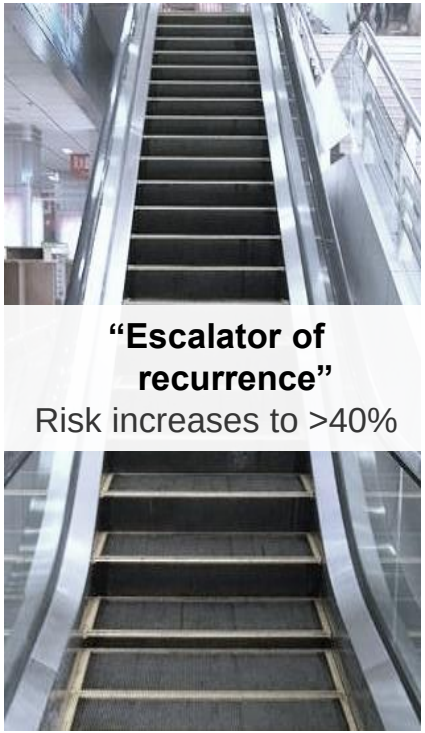
Risk factors: age >65 years, female gender, hospitalization

Bezlotoxumab for those at high-risk for recurrence
- **Lower efficacy in those with recurrent disease vs primary *C. difficile* infection**

Treatment options are more limited for multiply recurrent disease:

Long-term treatment with vancomycin over 6-10 weeks
- High rates of recurrence of 42-74%

None of these approaches address disease pathogenesis



"Escalator of recurrence"
Risk increases to >40%

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

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FMT Safety Concerns Amplified by High-profile FDA Alerts

The NEW ENGLAND JOURNAL of MEDICINE

Drug-Resistant *E. coli* Bacteremia Transmitted by Fecal Microbiota Transplant → **Transmission of drug-resistant bacteria discovered during clinical use**

U.S. FOOD & DRUG ADMINISTRATION

Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Risk of Serious Adverse Events Likely Due to Transmission of Pathogenic Organisms → **Contaminated FMT due to inadequate donor screening**

U.S. FOOD & DRUG ADMINISTRATION

Safety Alert Regarding Use of Fecal Microbiota for Transplantation and Additional Safety Protections Pertaining to SARS-CoV-2 and COVID-19 → **New concerns about potential COVID-19 transmission via FMT**

Using the universe of microbes in stool brings unintended consequences

Need a better, more focused approach to microbiome repair

DeFillip *NEJM* 2019; Blaser *NEJM* 2019; Wilcox *Open Forum Infect Dis* 2020; https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/safety-alert-regarding-use-fecal-microbiota-transplantation-and-risk-serious-adverse-events-likely; https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/safety-alert-regarding-use-fecal-microbiota-transplantation-and-additional-safety-protections

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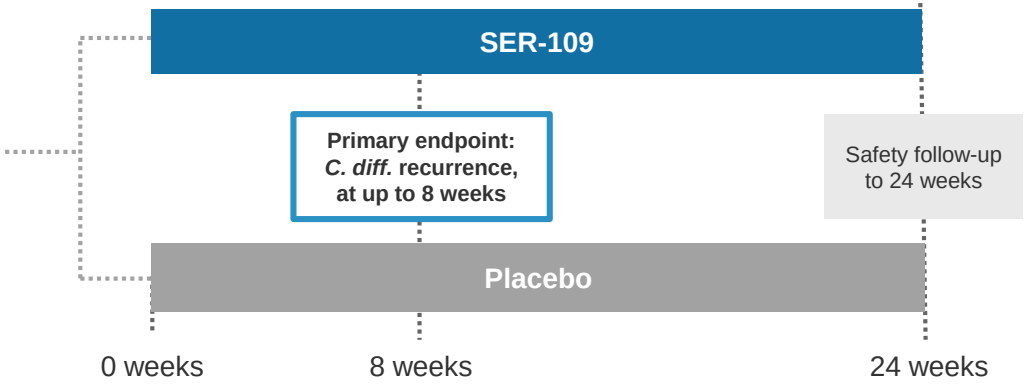
Positive ECOSPOR III Phase 3 Study Readout

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



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

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

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

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Topline SER-109 Phase 3 Study Efficacy Results

PRIMARY EFFICACY ENDPOINT RESULTS:

Time point	SER-109 (N =89)	Placebo (N =93)	RR (95%CI)	p-Value (p1/p2)
	n (%) of recurrences	n (%) of recurrences		
Week 8	**11** (12.4)	**37** (39.8)	**0.32** (0.18-0.58)	**<0.001 / <0.001**

- Highly statistically significant treatment effect compared to placebo at 8 weeks
- Absolute reduction in risk of 27%
- Results were statistically significant in both age-stratified subgroups: 18-64 years old, or 65+
- Sustained patient benefit maintained at 24 weeks

Approximately 88% sustained clinical response rate

(percentage of patients who remain free of CDI at 8 weeks)

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Favorable Safety Profile Observed in Phase 3

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

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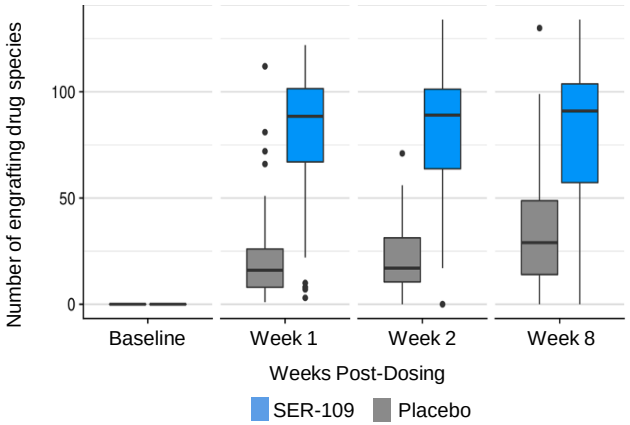
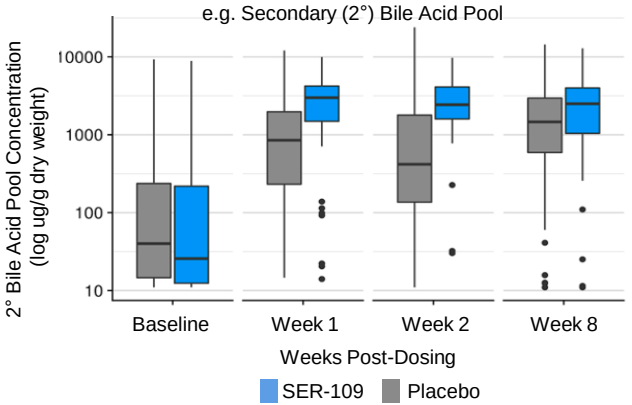
Phase 3 Mechanism of Action Data Support Clinical Outcome

Pharmacokinetics:
SER-109 bacteria engrafted rapidly in subjects & significantly greater engraftment was durable at all timepoints post dosing



Pharmacodynamics:
SER-109 administration broadly modulated the gut microbiome and rapidly shifted metabolic landscape of the gut significantly decreasing 1° bile acids and increasing 2° bile acids



1° Bile Acids: Germinant for *C. difficile* spores

2° Bile Acids: Inhibit *C. difficile* vegetative growth

eSymposia
Joint with The Microbiome: From Mother to Child
Harnessing the Microbiome for Disease Prevention and Therapy
January 18-20, 2021 | 10:00AM EST | 3:00PM UTC

Data presented Jan 20, 2021

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SER-109 Open-label Study Enrollment Ongoing

- FDA has indicated that ECOSPOR III efficacy results should support BLA filing as a single pivotal trial
- Per FDA, the SER-109 safety database should include at least 300 treated subjects
- Enrollment is ongoing in a SER-109 open-label study in recurrent CDI patients, including those with a first recurrence of disease

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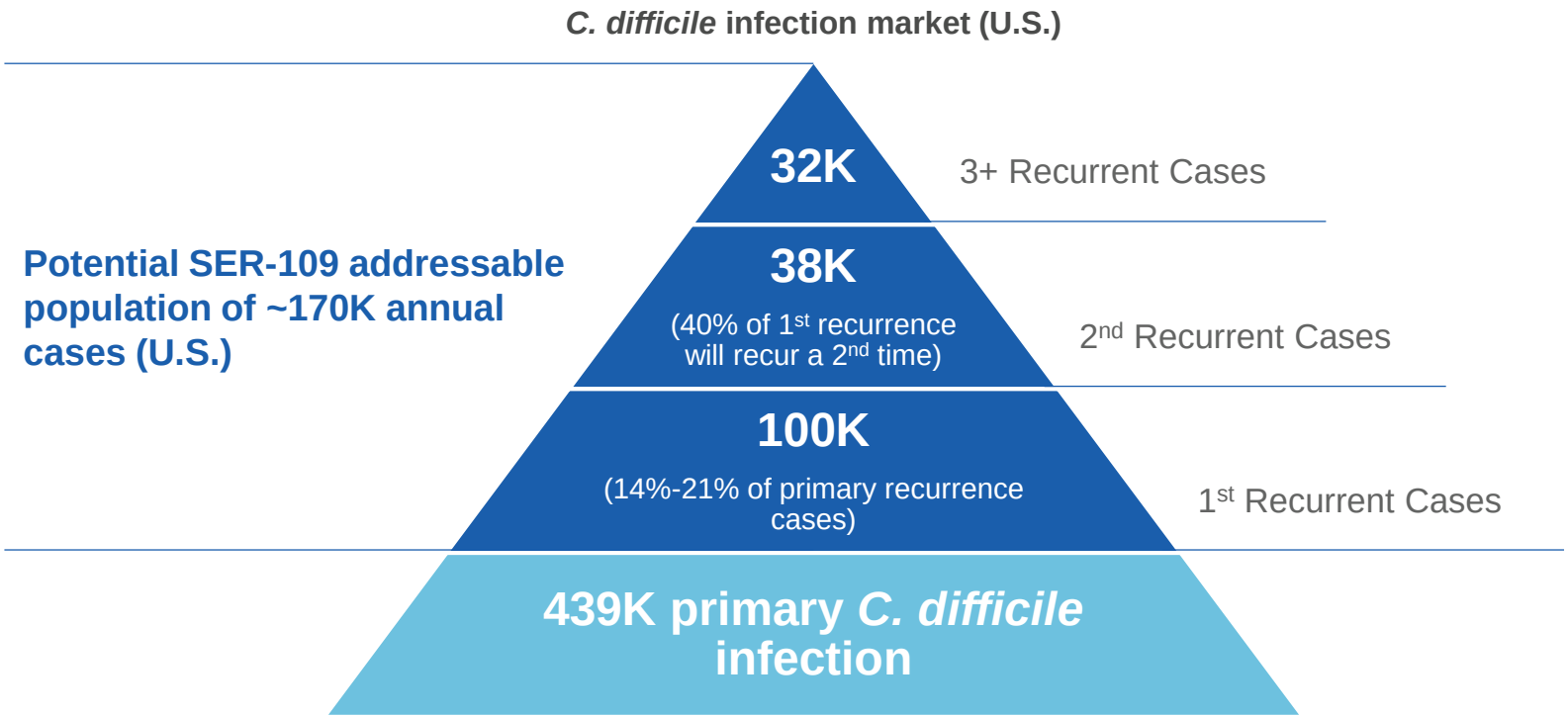
Broad SER-109 Commercial Potential in the U.S. and Globally



1. Desai *BMC Infectious Diseases* 2016). Zhang *Clinical Infectious Diseases* 2018. Rodrigues, In*fect Control Hosp Epidemiol* 2016. Lessa *N Engl J Med* 2015.

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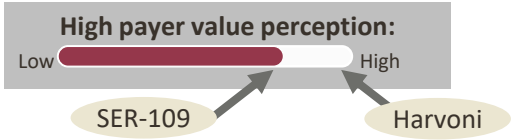
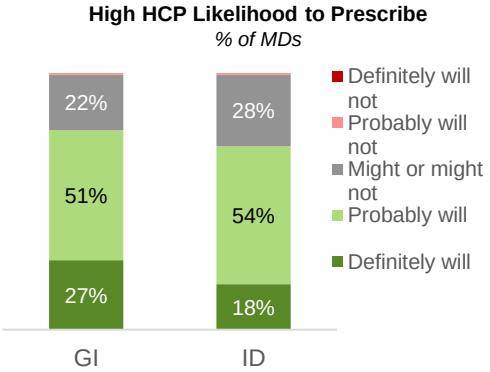
SER-109 is Potential First and Best-in-class Microbiome Therapeutic to Transform Care for Patients with rCDI

- **External stakeholder feedback on SER-109 is resoundingly positive**
  - Highly appealing addition to the current armamentarium for rCDI
  - Combination of efficacy and safety profile delivered in a short course oral regimen





- **SER-109 has potential to become the cornerstone of treatment**

- **Success is breaking the vicious cycle of recurrence that is the current hallmark of this disease**
  - Relieving patients of their fear and frustration
  - Providing HCPs for the first time a proven, highly effective option for sustained clinical response
  - Potentially transforming care for tens of thousands of patients across the US annually

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Amplifying Efforts for Market Preparation and Launch

Scaling Market Education Efforts	• Medical communications strategy • KOL mapping • Develop and deploy payer value proposition
Enhancing Understanding of Commercial Opportunity	• Deeper patient journey analysis • Pricing analysis • Customer segmentation • Identify options for go-to-market model
Building Infrastructure to Launch	• Scale Medical Affairs organization and deploy MSL team • Hire key commercial leadership roles • Key external strategic partners on board

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Thank You