



## Company Overview

June 2019

*Oral and IV treatment for serious bacterial infections*

# Forward-looking Statements & Disclaimer

This presentation contains forward-looking statements. These forward-looking statements include, without limitation, statements regarding the development, therapeutic and market potential of sulopenem, the sufficiency of cash resources, the granting or issuing of patents, the timing, progress and results of clinical trials, and the expected timing of NDA and EMA filings. In some cases, forward-looking statements can be identified by words such as “may,” “believes,” “intends,” “seeks,” “anticipates,” “plans,” “estimates,” “expects,” “should,” “assumes,” “continues,” “could,” “will,” “future,” “potential” or the negative of these or similar terms and phrases. Forward-looking statements involve known and unknown risks, uncertainties and other 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. Forward-looking statements include all matters that are not historical facts. Actual future results may be materially different from what is expected due to factors largely outside our control, including the results of clinical trials, clinical trial patient enrolment, changes in regulatory requirements or decisions of regulatory authorities, commercialization plans and timelines if approved, the actions of third-party clinical research organizations, suppliers and manufacturers and other factors discussed under the caption “Risk Factors” in the most recently filed Annual Report on Form 10-K or Quarterly Report on Form 10-Q (as the case may be) and other documents filed with the Securities and Exchange Commission from time to time. Forward-looking statements represent our beliefs and assumptions only as May 14, 2019. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

Certain information contained in this presentation relates to, or is based on, studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this presentation, it has not been independently verified, and we make no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

# Investment Summary

## De-risked Lead Asset

- **Phase 3 lead asset, sulopenem, an oral and IV penem antibiotic licensed from Pfizer**
  - Phase 1 and 2 in over 1,850 patients; solid supportive efficacy and safety results
  - Oral formulation has IP in U.S. into 2034 (2029 plus potential extensions)
    - Filed new patent application which, if granted, will provide additional protection into 2040
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## Phase 3 Enrollment Complete in 2H19

- **Three Phase 3 trials initiated in 3Q18 in three indications under special protocol assessments (SPAs) with FDA:**
  - Uncomplicated urinary tract infections (uUTI)
  - Complicated urinary tract infections (cUTI)
  - Complicated intra-abdominal infections (cIAI)
- **All Phase 3 clinical trials expected to complete enrollment in 2H19**
- **Topline data on all three clinical trials expected in 4Q19/1Q20**

## Proven Track Record

- **Experienced leadership team with a track record of creating shareholder value; most recently at Durata Therapeutics**

## Large Commercial Opportunity

- **Addressable U.S. market of ~25 million infections per year**
- **Multi-drug resistance in UTIs is alarmingly high and growing**
- **Potentially first oral and IV penem antibiotic**
- **First branded antibiotic for uUTI in over 20 years**

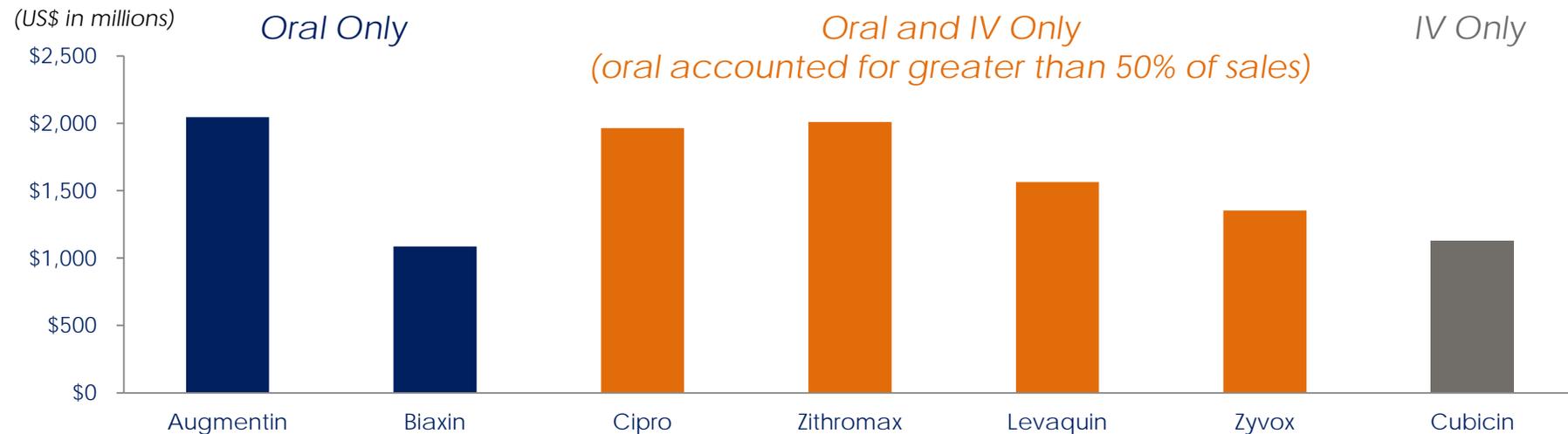
# Why is Oral Sulopenem Different?

Challenges Faced by Recent Antibiotic Launches	Oral Sulopenem Differentiation
<p><b>IV Only Antibiotics</b></p> <ul style="list-style-type: none"> <li>Limited hospital market with inexpensive generic competitors</li> </ul>	<p><b>Oral Antibiotic</b></p> <ul style="list-style-type: none"> <li>Access to very large community market with Oral Sulopenem</li> <li>Opportunity for step-down to Oral Sulopenem to reduce hospital length-of-stay and/or confidently transition home</li> </ul>
<p><b>Hospital Focused</b></p> <ul style="list-style-type: none"> <li>Long &amp; challenging formulary process</li> <li>Reimbursed within existing DRG</li> </ul>	<p><b>Community Focused, plus Hospital Step-Down</b></p> <ul style="list-style-type: none"> <li>Favorable reimbursement with Oral Sulopenem</li> <li>Reimbursement for Oral Sulopenem not part of the DRG</li> </ul>
<p><b>Single Indication</b></p> <ul style="list-style-type: none"> <li>Products focus on a single indication, often with niche markets</li> </ul>	<p><b>Multiple Indications at Launch</b></p> <ul style="list-style-type: none"> <li>Oral Sulopenem to launch with three indications: uncomplicated UTI, complicated UTI, &amp; complicated intra-abdominal infections</li> </ul>
<p><b>Unproven and Challenging Antibiotic Classes</b></p> <ul style="list-style-type: none"> <li>New antibiotic classes or antibiotic classes with known safety challenges</li> </ul>	<p><b>Proven &amp; Trusted Penem Class</b></p> <ul style="list-style-type: none"> <li>Safety of a beta-lactam with efficacy and trust of a penem</li> <li>Potential to be the first oral penem available in the U.S.</li> </ul>
<p><b>Fierce Competition</b></p> <ul style="list-style-type: none"> <li>Multiple branded products fighting for share in small hospital IV markets</li> </ul>	<p><b>Dominant Share of Voice</b></p> <ul style="list-style-type: none"> <li>First new branded oral for UTIs in over 20 years</li> <li>Potential to be only product promoted for uUTI for a few years post approval</li> </ul>

# Sulopenem has the Potential to Achieve Blockbuster Status

Historic blockbuster<sup>(1)</sup> antibiotics share key characteristics

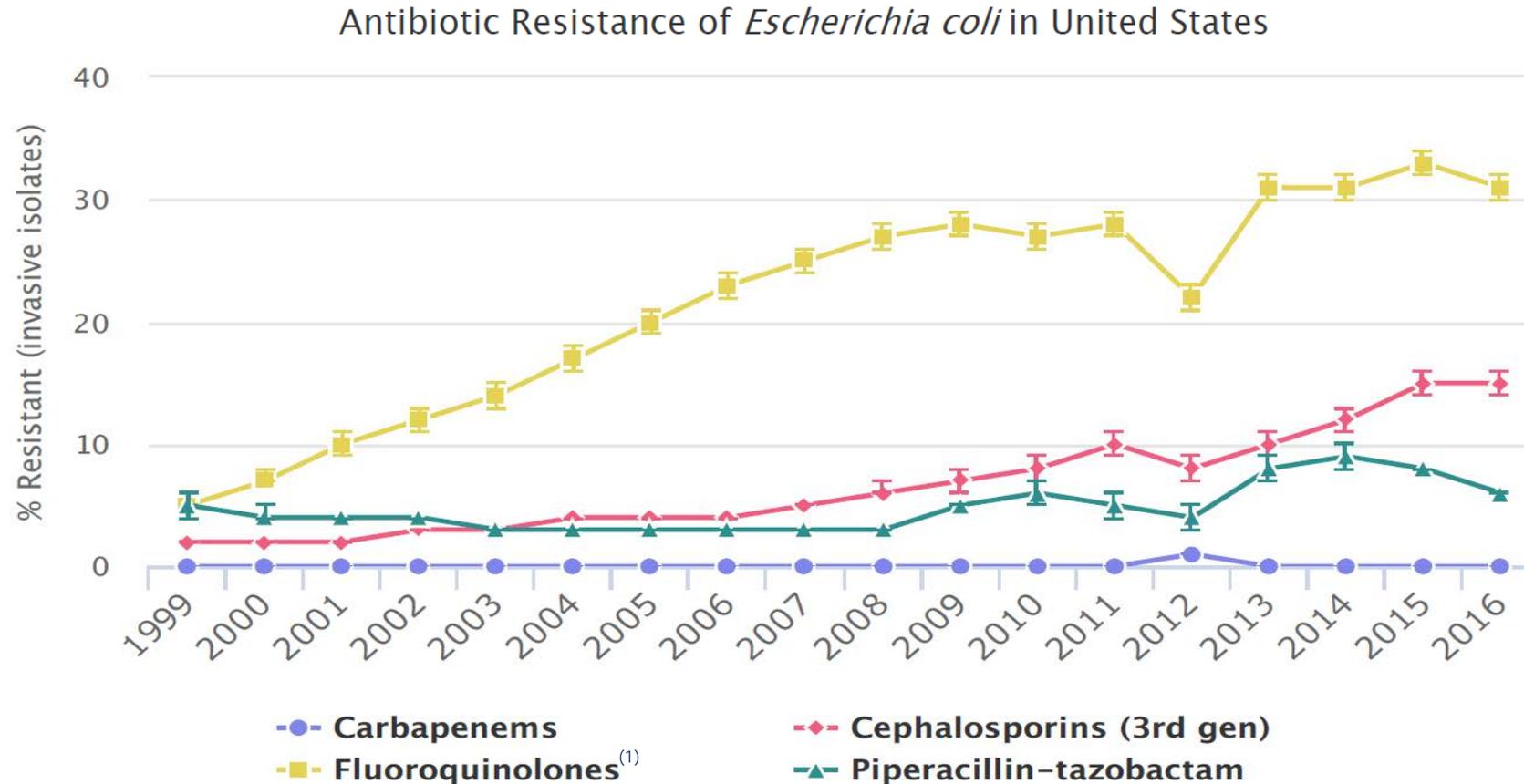
- ✓ High unmet need
- ✓ Oral product
- ✓ Community focus
- ✓ Multiple Indications
- ✓ Payer access & reimbursement outside the hospital



Source: (1) Company Filings; blockbuster defined as > \$1 billion in peak year sales

# Antibiotic Resistance Continues to Trend Higher

## Quinolone and Cephalosporin Efficacy Steadily Eroding



Center for Disease Dynamics, Economics & Policy (cddep.org)

Source: Center for Disease Dynamics, Economics Policy (CDDEP) & The Surveillance Network (TSN); Data analytics provided by BD Insights; Gonzalo Bearman MD, MPH; Centers for Disease Control (CDC)

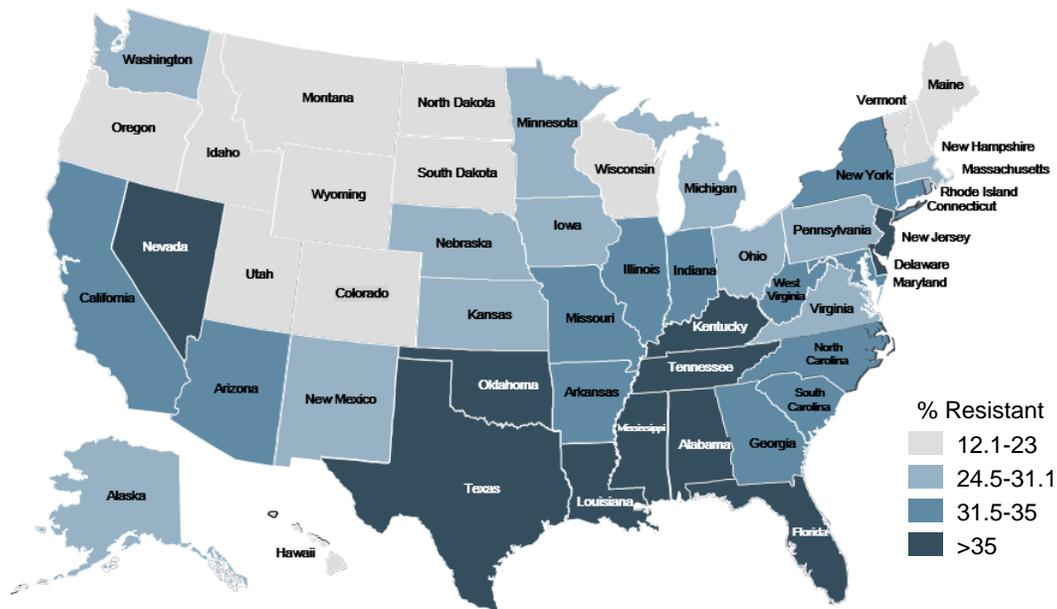
(1) FDA warns against the use of quinolones for uUTI due to safety concerns

# Quinolone Resistance Driving Need for New Therapies

>25% resistance rate in most populous regions of the U.S.

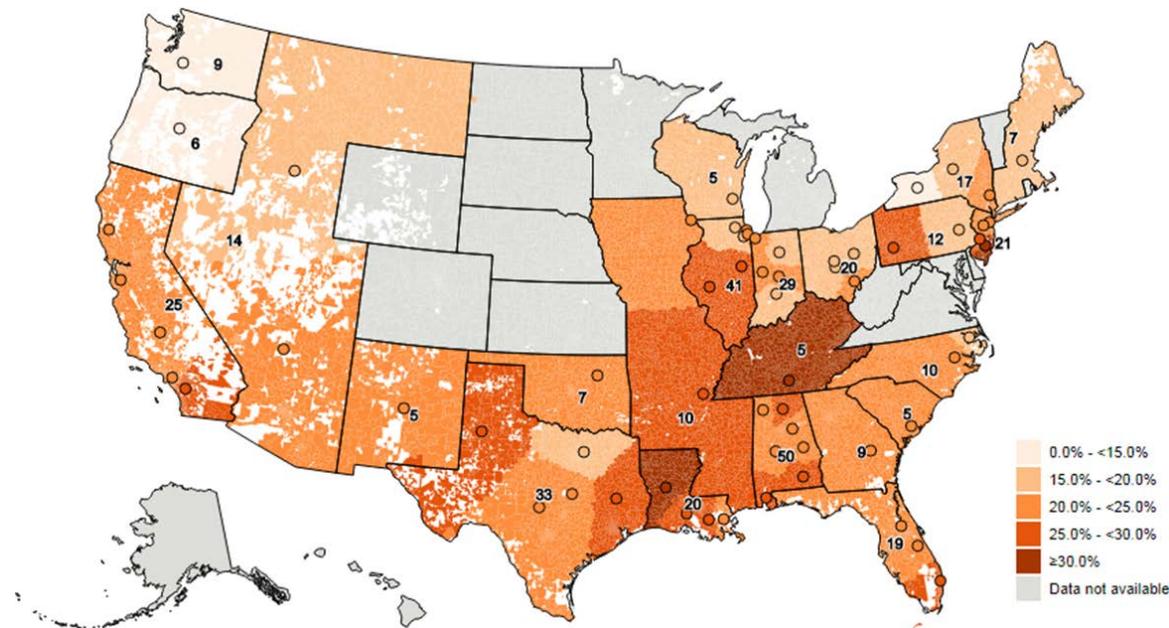
2014, CDC, inpatient *E. coli* quinolone resistance, by state

*E. coli* has > 30% resistance to fluoroquinolones in ~50% of states and > 25% resistance in nearly 80% of states



2017 outpatient *Enterobacteriaceae* quinolone resistance, by zip code

>20% of outpatient urinary gram negative isolates, predominantly *E. coli*, are resistant to quinolones in the most populous areas of the US



Source: L.E.K. analysis of: CDDEP, Sanchez et al. 2012, Owumi et al. 2014, FDA, CDC, IDSA, Masters et al. 2003, and interviews

# Sulopenem Demonstrates Potent *In-vitro* Efficacy

Targeted spectrum activity against *E. coli* and *K. pneumoniae*, the most common causative pathogens for our target indications

Antibiotic	<i>E. coli</i> N=189		<i>K. pneumoniae</i> N=65		<i>P. mirabilis</i> N=19	
	MIC <sub>90</sub> (µg/mL)	% S	MIC <sub>90</sub> (µg/mL)	% S	MIC <sub>90</sub> (µg/mL)	% S
Sulopenem	0.06	-	0.12	-	0.25	-
ESBL+	0.06		0.25			
ESBL -	0.03		0.06			
Ertapenem	0.015	100	0.12	97	0.03	100
Meropenem	0.03	100	0.06	97	0.12	100

## Oral Agents Currently on Market:

Nitrofurantoin	16	97	≥64	23	≥64	0
Fosfomycin	8	98	128	86	64	95
Ciprofloxacin	≥2	77	1	91	≥2	74
Trimethoprim - Sulfamethoxazole	≥32	74	≥32	86	≥32	58
Amoxicillin - Clavulanate	16	76	≥16	80	≥16	74

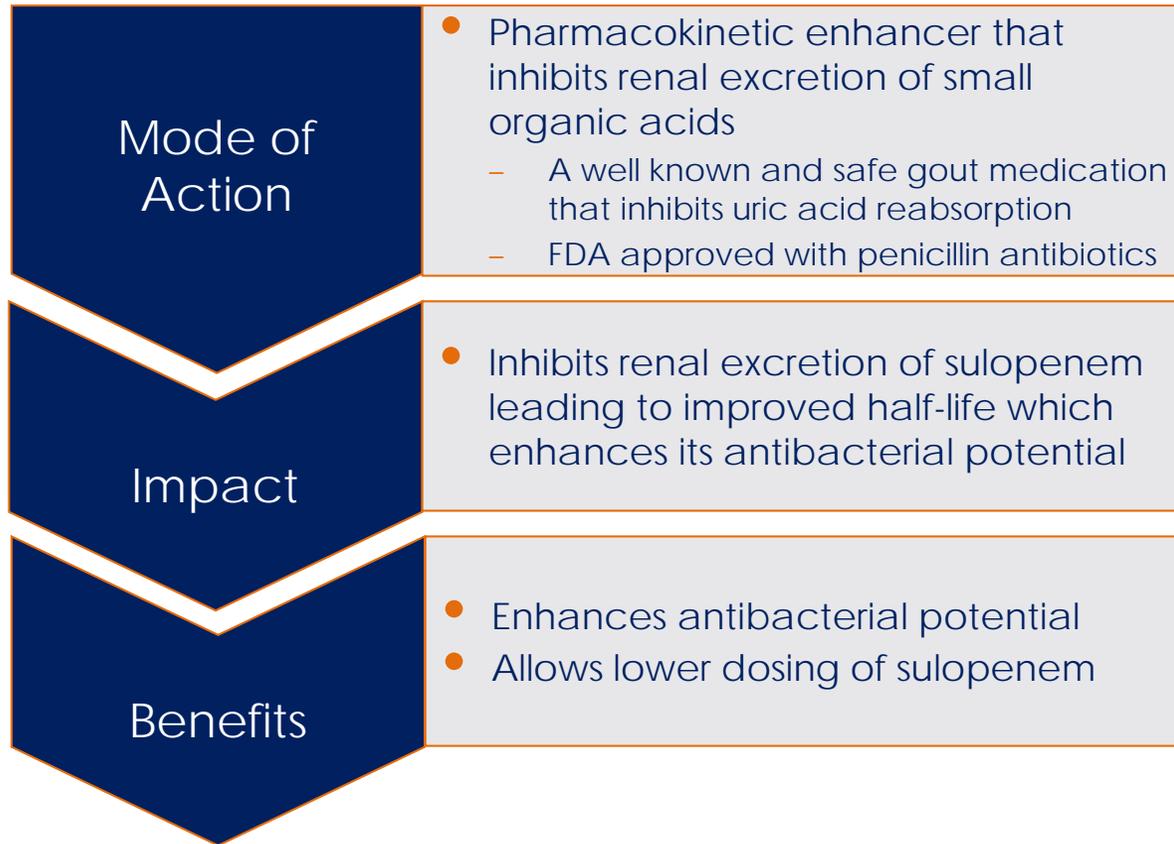
Sulopenem's *in-vitro* activity is similar to existing carbapenems and is better than agents in other classes

Note: Boxes in red show susceptibility <80% ;n=20 and 16 *E. coli* and *K. pneumoniae* ESBL + organisms, respectively; % S = percentage susceptible. MIC<sub>90</sub>, or minimum inhibitory concentration (MIC), is a measure of the lowest concentration of antibiotic at which 90% of the isolates are inhibited.

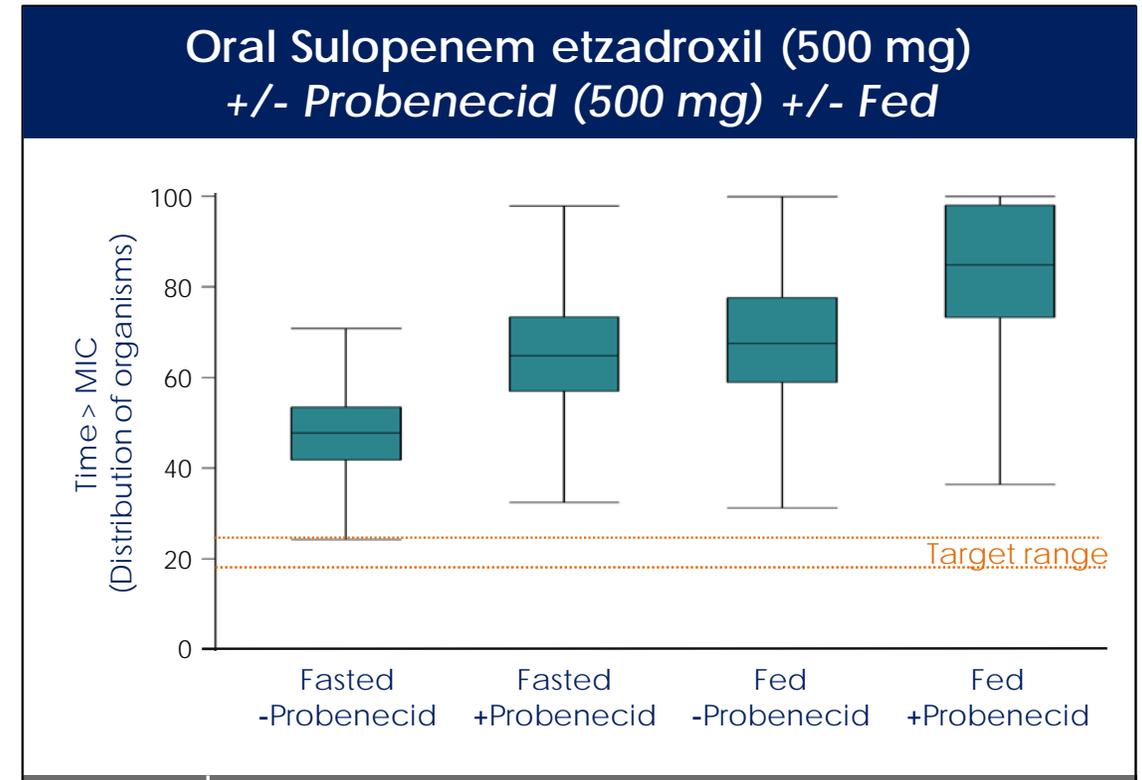
Source: IHMA 2016 with pathogens from 2013-2015; WHO: Urinary tract infections: epidemiology, mechanisms of infection and treatment options; Nat Rev Microbiol. 2015 May; 13(5): 2690284. Empiric Treatment of uUTI (IHMA: 2013-2015); Clinical Infectious Disease, October 2016; FDA; IHMA data, IDSA Guidelines for the Treatment of Acute Uncomplicated Cystitis and Pyelonephritis in Women: A 2010 Update

# Oral Sulopenem Delivers Concentrations that Exceed Targeted Time Above MIC

## Oral Formulation is Enhanced with Probenecid

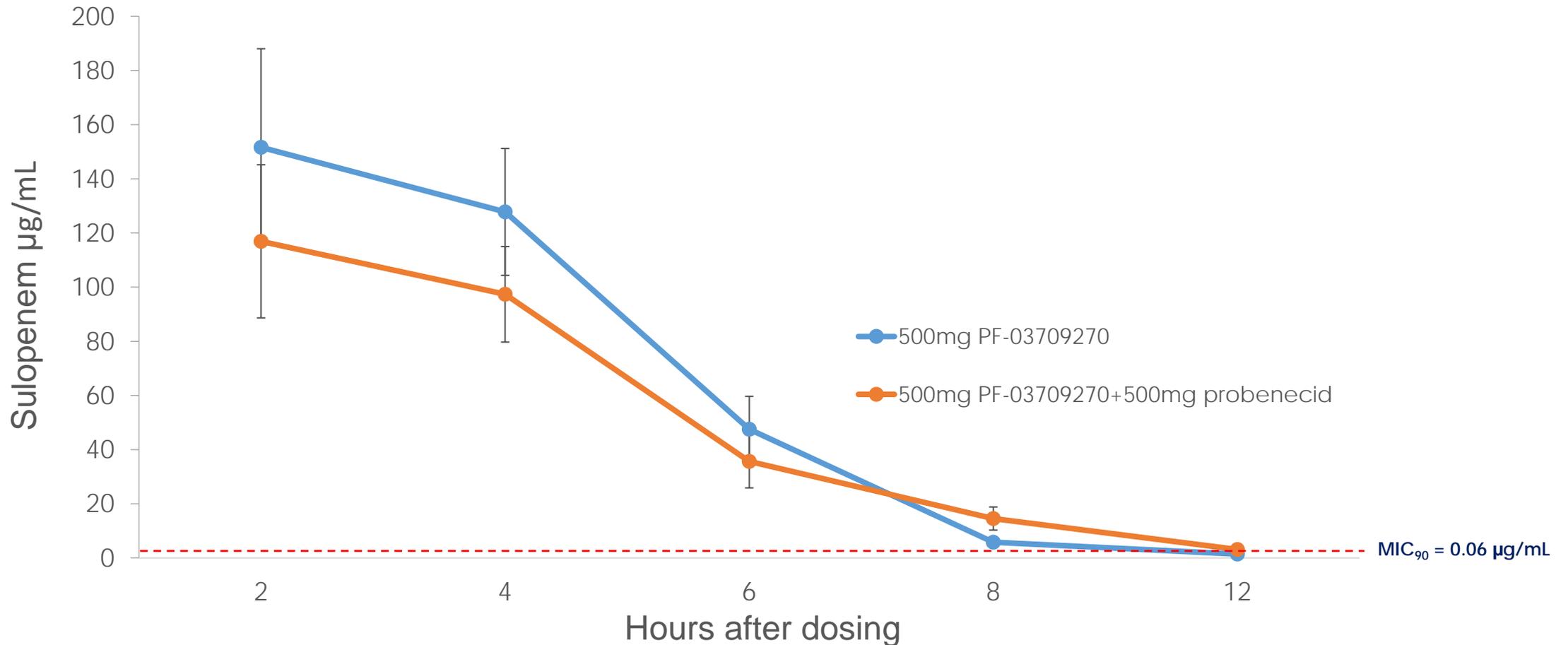


## Co-administration with Food Increases the Mean AUC and Mean $T_{\text{free}} > \text{MIC}$



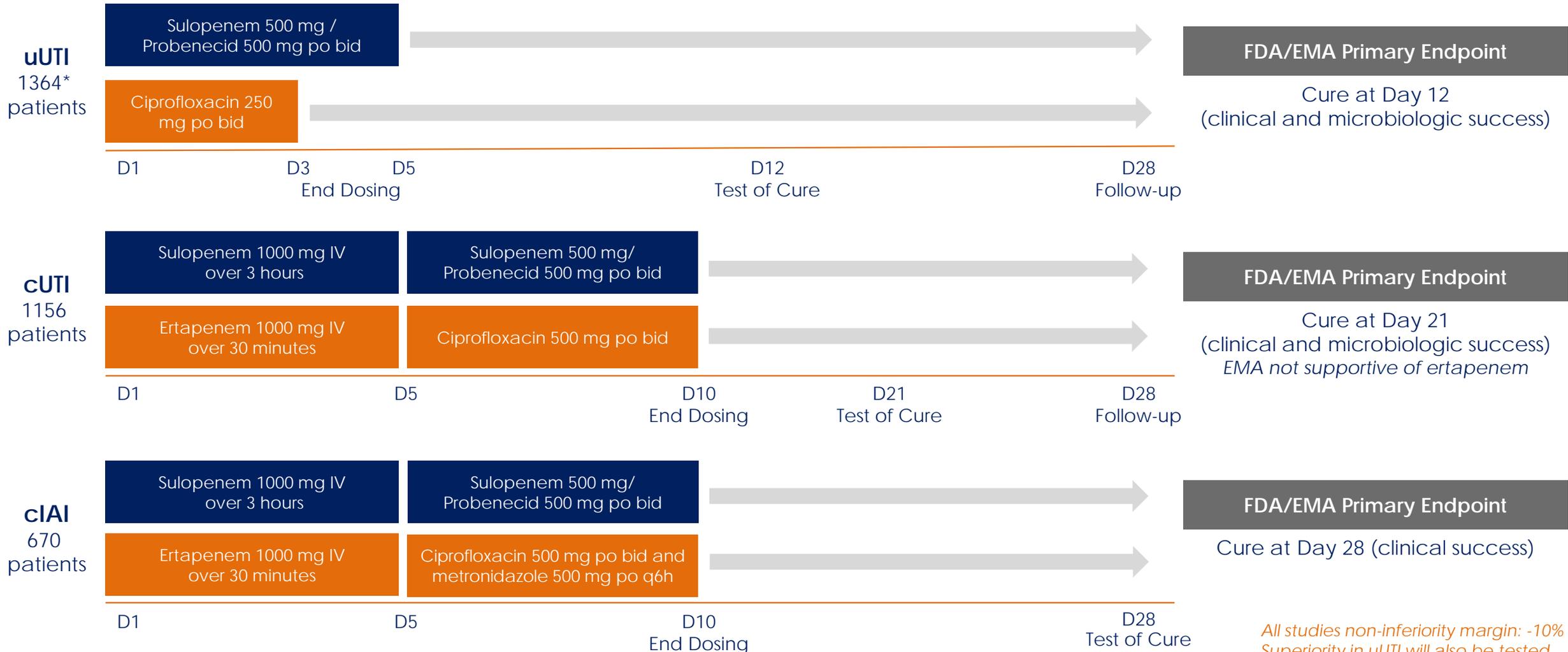
# Urine Concentration Data Supports Oral Sulopenem to Treat UTIs

Peak urine concentrations are almost 2,000-fold higher than the MIC<sub>90</sub>, and a single dose will exceed the MIC<sub>90</sub> for the entire bid dosing interval



# Phase 3 Program Gains Three Indications

EOP2 agreement reached with FDA, Special Protocol Assessment received for all indications



\*pending results of interim analysis on potential sample size adjustment

All studies non-inferiority margin: -10%  
Superiority in uUTI will also be tested

# Significant Addressable Market in Two Distinct Settings

~\$25B Opportunity at Branded Price\*



## Community

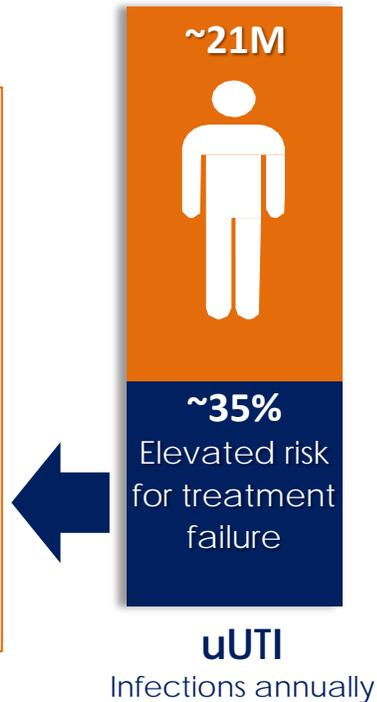
Elevated risk patients in the community setting suffering from uncomplicated urinary tract infections

### Risk Factors for Treatment Failure

- Age
- History of drug-resistant infection
- History of antibiotic failure with resistant organism
- Recurrent UTIs

### Elevated Risk Patients (Typical Profile)

- Elderly
- Comorbidities / diabetes
- Immuno-compromised
- Recent hospitalization
- In a long term care setting



## Hospital/Hospital Transition

Hospitalized patients suffering from complicated, antibiotic-resistant infections



\* Illustrative example only assuming branded pricing per course of therapy of \$1,000. The market opportunity depicted is not a revenue projection for Iterum's sulopenem program.

# Sulopenem Has Notable Competitive Differentiation

Differentiated profile vs. current and future oral agents

U.S. Competitive Oral Landscape		IV / Oral Option	Active / Potent vs. MDR E. coli	uUTI, cUTI, cIAI Indications	Safety / Tolerability
On Market	Sulopenem (Iterum)	●	●	●	●
	Quinolones	●	●	●	●
	Nitrofurantoin	●	●	●	●
	Fosfomicin	●	●	●	●
	SMX/TMP	●	●	●	●
	Amoxicillin clavulanate	●	●	●	●
In Development	Tebipenem* (Spero) - cUTI	●	●	●	●
	Ceftibuten / clavulanate (Achaogen) - cUTI	●	●	●	●
	Omadacycline (Paratek) - uUTI/cUTI	●	●	●	●
	Delafloxacin (Melinta) - cUTI	●	●	●	●

- ✓ Existing oral options are becoming ineffective due to significant and growing resistance of pathogens to current treatments
- ✓ FDA warns against the use of Quinolones for uUTI
- ✓ Sulopenem – with its oral and IV formulations - provides flexibility for physicians to treat complicated infections in a manner they are most comfortable with
- ✓ Multiple indications for Oral Sulopenem provides a significant competitive advantage across selling environments
- ✓ Oral Sulopenem will have first-mover advantage among oral therapies in development based on estimated launch timing
- ❖ Oral Sulopenem is currently ~ one year or more ahead of other agents in development

Notes: \*Per Spero public disclosures, tebipenem dosing will be three times daily (TID) vs. two times daily (BID) for Oral Sulopenem

# Oral Sulopenem's Value Proposition Will Enable "Access"

- ✓ **Only Oral (& IV) Penem**
  - Confidence transitioning patient for step-down & release
- ✓ **Multiple indications at launch**
  - cUTI, cUTI and cIAI support greater potential utility
- ✓ **Efficacy & Safety vs. SOC**
  - Addresses clinical & safety gaps with market leading class (Cipro)
- ✓ **Compelling economic proposition**
  - Hospital avoidance & reduced length of stay (LOS)
- ✓ **Acute Condition (vs. Chronic)**
  - No ongoing cost for UTI
- ✓ **No branded competing products**
  - Market leading oral products for UTI approved over 20 years ago

## **Payer Research Supports Access**

*Based on payer research that covered ~240M lives, management of UTI category not a high priority and anticipate **tier 3 placement** with limited use of step edits. Expect "oral step-down" upon discharge from hospital to be influenced by HMO / PBM formulary.*

## **Physician Research Supports Utility**

- ~70% of physicians probably or definitely would prescribe oral sulopenem for elevated risk patients in the community
- ~70% of physicians probably or definitely would prescribe oral sulopenem as step down therapy in cUTI

Source: LEK Payer Research 2016; MediMedia Managed Markets Research 2017; <https://formularylookup.com>

*Anticipated restriction to ID consult for IV Sulopenem (consistent with other recently launched IV antibiotics & carbapenems).*



# Financial Overview

Key Metric	March 2019
Cash, cash equivalents and short-term investments (millions)	\$70
Gross debt obligation (millions)	\$15
Ordinary shares outstanding (millions)	14.4

Cash on Hand Provides Funding Into 2020

# Multiple Near-term Milestones

Three Phase 3 trials projected to read out in near term

Potential Milestone	Expected Timing
<b>uUTI:</b> Initiate Pivotal Phase 3 Trial	3Q18 ✓
<b>cUTI:</b> Initiate Pivotal Phase 3 Trial	3Q18 ✓
<b>cIAI:</b> Initiate Pivotal Phase 3 Trial	3Q18 ✓
<b>uUTI:</b> Topline Phase 3 Results	4Q19/1Q20
<b>cUTI:</b> Topline Phase 3 Results	4Q19/1Q20
<b>cIAI:</b> Topline Phase 3 Results	4Q19/1Q20
File NDAs For All Three Indications	1H20
File MAA in Europe	2H20
Potential FDA Approval	2H20

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