

Focused on Growth and Innovation

"Patients are at the heart of what we do"

Investor presentation

May 23, 2023



### **Table of contents**

- Executive summary
- Portfolio
  - Antifungal
    - Cresemba® (isavuconazole)
  - Antibiotic
    - Zevtera<sup>®</sup> (ceftobiprole)
- Financials & Outlook
- Appendix





**Executive summary** 



### **Experienced leadership team**



David Veitch CEO

Joined

2014

Previous roles:







Adesh Kaul CFO

2009







Marc Engelhardt MD, Ph.D. CMO

2010







Gerrit
Hauck
Ph.D. CTO

2018





**Laurenz Kellenberger Ph.D.** CSO

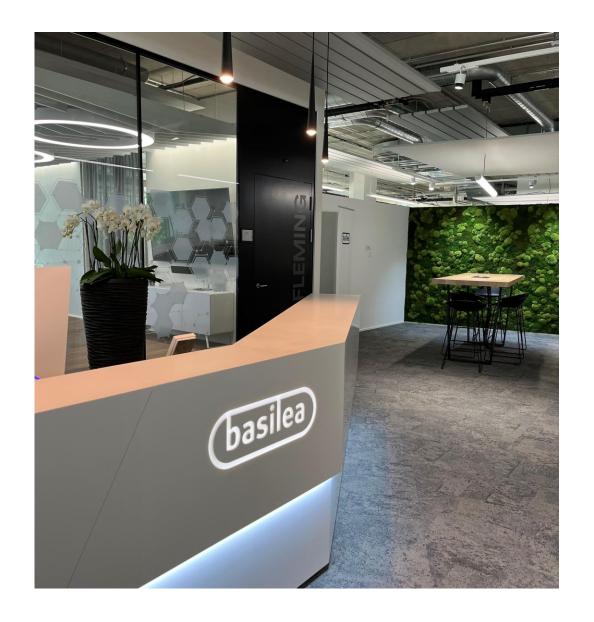
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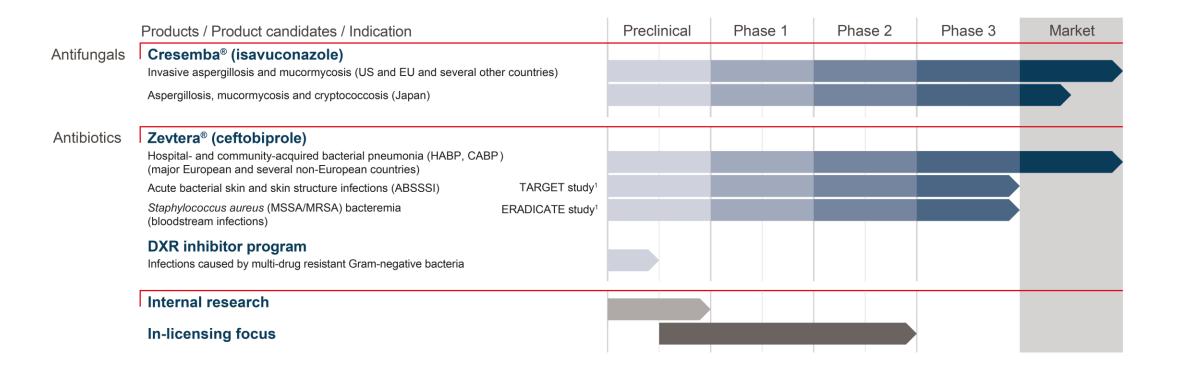


### At a glance

- Focus on the treatment of severe bacterial and fungal infections
- Recognized ability to establish and manage partnerships in both the development and commercial phase
- Cresemba<sup>®</sup> and Zevtera<sup>®</sup> two revenue generating hospital anti-infective brands
- Commercial products complemented by programs which are in an earlier stage of development
- Profitable company listed on SIX Swiss Stock Exchange, SIX: BSLN
- Located in the Basel area life sciences hub, Switzerland

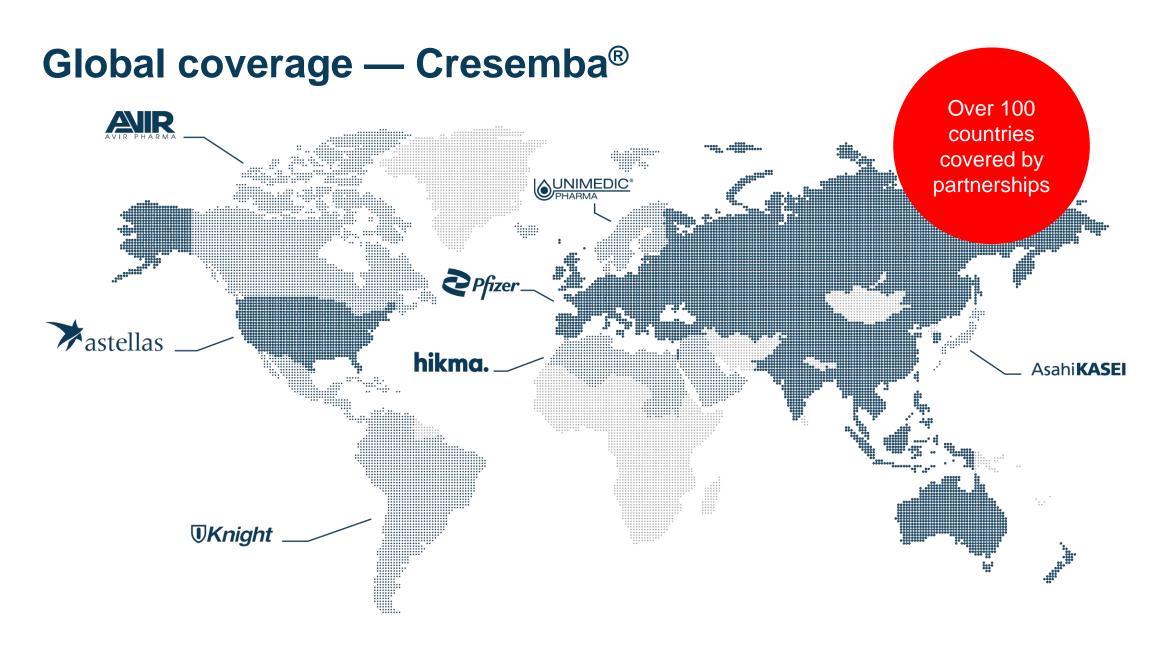


# Potential for sustainable growth and value creation based on commercialized brands and innovative pipeline



<sup>1</sup> Studies to support US NDA. Phase 3 program is funded in part with federal funds from the US Department of Health and Human Services; Administration for Strategic Preparedness and Response; Biomedical Advanced Research and Development Authority (BARDA).





## The company we keep — Established strong partnerships

#### License partners





Europe (excl. Nordics), China Asia-Pacific, Russia, Turkey and Israel (Cresemba®) U.S. (Cresemba®)

#### Asahi **KASEI**

Japan (Cresemba®)



#### **Distribution partners**



Europe (excl. Nordics), Israel (Zevtera®)



Nordics (Cresemba® and Zevtera®)

### hikma.

MENA region (Cresemba® and Zevtera®)

(Cresemba® and Zevtera®)

### **UKnight**

LatAm (Cresemba® and Zevtera®)



Russia and the Eurasian Economic Union (Zevtera®)

Double-digit percentage royalties on sales by license partners Participation
in sales of
distribution
partners
through
transfer price

>CHF 325 mn upfront and milestone payments received

Canada

>CHF 1 bn

in potential

milestones

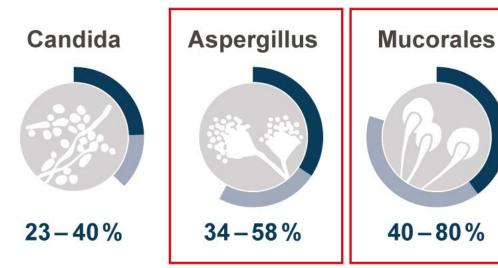
remaining



# The market — Invasive fungal infections

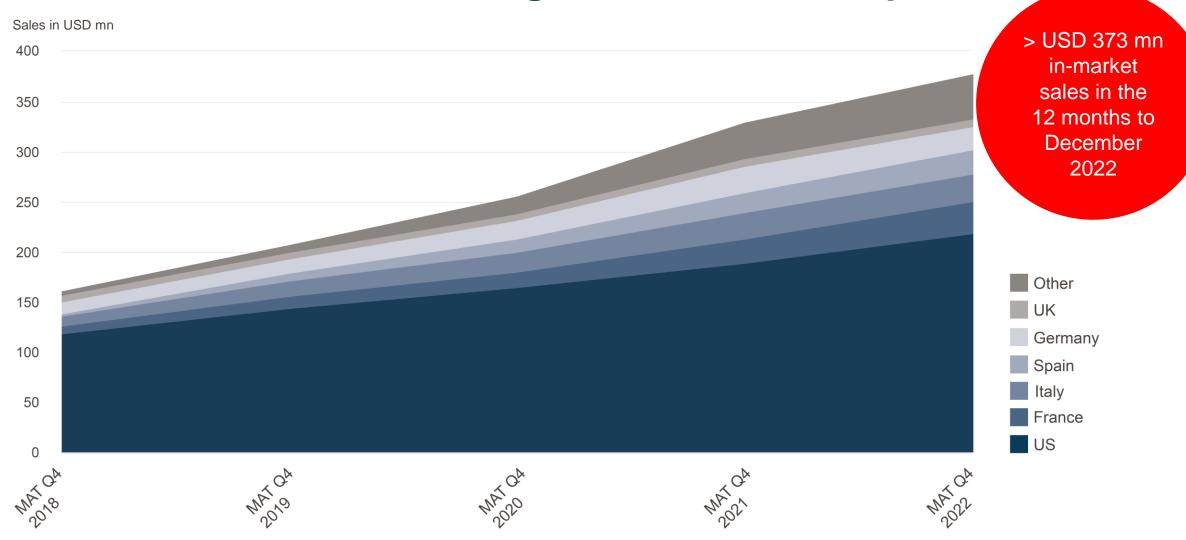
- Severe, potentially life-threatening infections mainly affecting immunocompromised patients
- An important cause of morbidity and mortality in cancer patients undergoing intensive chemotherapy regimens
- Rising number of immunocompromised patients (cancer and transplantations) driving therapeutic demand
- Mucorales infections on the rise doubled from 2000 to 2013
- Limitations of current therapies (spectrum of activity, toxicity, effective plasma levels) drive the need for new agents

### Mortality rates for invasive fungal infections\*\*



<sup>\*\*</sup>Kullberg/Arendrup *N Engl J Med* 2015, Baddley *Clin Infect Dis* 2010, Roden *Clin Infect Dis* 2005, Greenberg *Curr Opin Infect Dis* 2004.

Cresemba continues strong in-market sales uptake

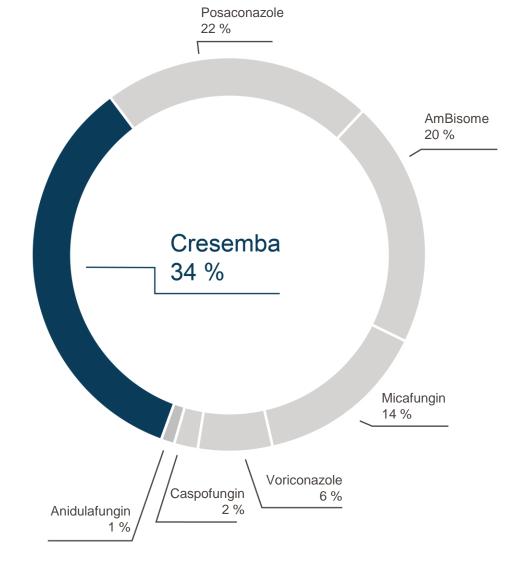


MAT: Moving annual total; Source: IQVIA Analytics Link, December 2022



# Cresemba has become the market leader in the US in terms of value

 Consistently increased market share among best-in-class antifungals\* since launch to 34% by December 2022\*\*



<sup>\*\*</sup>Market share based on MAT Q4 2022, in-market sales reported as moving annual total (MAT) in US dollar; rounding consistently applied. Source: IQVIA Analytics Link, December 2022

<sup>\*</sup> Best-in-class antifungals: Cresemba (isavuconazole), posaconazole, voriconazole, AmBisome, anidulafungin, caspofungin, micafungin



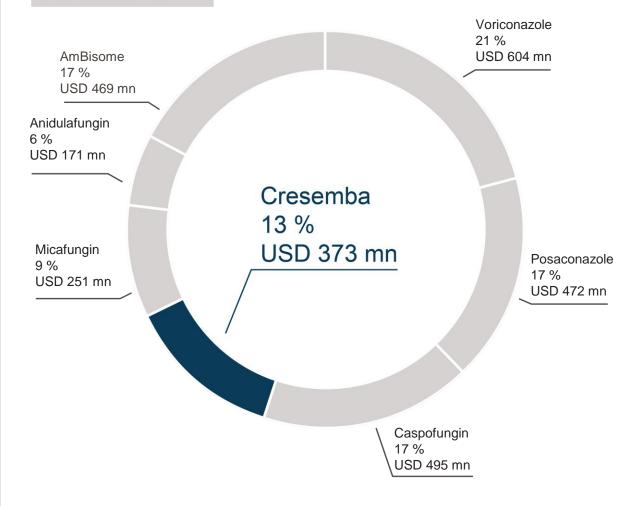
## Global sales of best-inclass antifungals\* by product

**USD 2.8 bn sales (MAT Q4 2022)** 

Significant potential to increase Cresemba® (isavuconazole) global market share

- Launched in 63 countries by end-2022
- Exclusivity through 2027 in the US and potential pediatric exclusivity extension to 2027 (from 2025) in the EU

VFEND (VORICONAZOLE) 2014 worldwide peak sales approx. USD 900 mn



\* Best-in-class antifungals: Cresemba (isavuconazole), posaconazole, voriconazole, AmBisome, anidulafungin, caspofungin, micafungin

MAT: Moving annual total; Source: IQVIA Analytics Link, December 2022, rounding consistently applied



# Cresemba — Differentiated by spectrum, safety and tolerability

- Broad spectrum of activity against molds, including emerging molds (mucorales)
- Consistent plasma levels
- Statistically fewer drug-related adverse events and treatment-emergent adverse events (liver, skin, eye) in invasive aspergillosis patients vs. voriconazole in SECURE phase 3 study
- Can be administered without restriction in patients with renal impairment

- Manageable drug-drug interaction profile
- Once daily maintenance dose, i.v./oral treatment
- ECIL-6 guideline: Cresemba® recommended for the first-line treatment of invasive aspergillosis in leukemia and hematopoietic stem cell transplant patients. ECIL states that isavuconazole is as effective as voriconazole with a better safety profile.



### Zevtera® — An introduction

- Broad-spectrum hospital anti-MRSA cephalosporin (including Gram-negative bacteria)
  - Rapid bactericidal activity
  - Potential to replace antibiotic combinations
  - Efficacy demonstrated in phase 3 clinical studies in SAB, ABSSSI and pneumonia<sup>1, 2, 3</sup>
  - Low propensity for resistance development<sup>1</sup>
  - Safety profile consistent with the cephalosporin class safety profile, demonstrated in both adult and pediatric patients<sup>1, 2, 3, 4</sup>
- Marketed in selected countries in Europe,
   Latin America, the MENA-region and Canada
- US NDA submission in preparation

Approved in major European countries & several non-European countries for both hospital-acquired bacterial pneumonia (HABP), excluding ventilator-associated pneumonia (VAP), and community-acquired bacterial pneumonia (CABP). Not approved in the US

MENA: Middle East and North Africa





<sup>&</sup>lt;sup>1</sup> Syed YY. Drugs. 2014;74:1523-1542 and Basilea data on file.

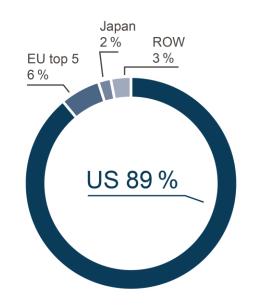
<sup>&</sup>lt;sup>2</sup> Overcash JS et al. Clin Infect Dis. 2021;73:e1507-e1517.

<sup>&</sup>lt;sup>3</sup> Holland TL et al., Open Forum Infect. Dis. 2022, 9: (S931–S932).

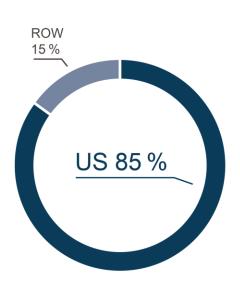
<sup>&</sup>lt;sup>4</sup> Rubino CM et al. Pediatr Infect Dis J. 2021;40:997-1003.

# The hospital anti-MRSA antibiotic market — A USD 2.6 bn market\* with the US being the most important region

Daptomycin sales by region (2015, before LOE)



Ceftaroline sales by region (MAT Q4 2022)



MRSA: Methicillin-resistant Staphylococcus aureus; LOE: Loss of exclusivity; ROW: Rest Of World; MAT: Moving annual total; Source: IQVIA Analytics Link, December 2022



<sup>\*</sup> Vancomycin, linezolid, teicoplanin, daptomycin, tigecycline, telavancin, ceftaroline, dalbavancin, ceftobiprole, oritavancin and tedizolid (daptomycin and tigecycline are partial sales in the US in IQVIA data)

## Ceftobiprole — Strategy for accessing the US market

- Planned US NDA submission in Q3 2023:
  - Two cross-supportive phase 3 studies under FDA Special Protocol Assessment (SPA)
    - Acute bacterial skin and skin structure Infections (ABSSSI)<sup>1</sup>
    - 2. Staphylococcus aureus bacteremia (SAB)<sup>2</sup>





 Previously completed phase 3 study in community-acquired bacterial pneumonia (CABP) as a third indication<sup>3</sup>

- Phase 3 program largely funded by BARDA (~70% total program costs; up to USD ~136 mn)
- Qualified Infectious Disease Product (QIDP) designation extends US market exclusivity to 10 years from approval
- Commercialization planned through partnership
  - Partnership to be secured prior to the regulatory decision



<sup>&</sup>lt;sup>3</sup> Nicholson SC et al. International Journal of Antimicrobial Agents 2012 (39), 240-246.



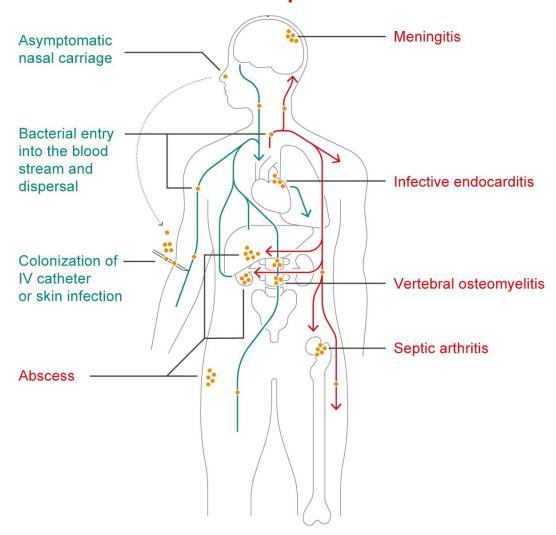
<sup>&</sup>lt;sup>1</sup> Overcash JS et al. Clin Infect Dis. 2021;73:e1507-e1517.

<sup>&</sup>lt;sup>2</sup> Holland TL et al., Open Forum Infect. Dis. 2022, 9: (S931–S932).

# SAB – An area with high medical need

- Nearly 120,000 S. aureus bloodstream infections in the US (in 2017)<sup>1</sup>
- ERADICATE targets complicated SAB, characterized by concomitant or metastatic infections such as bone, joint or heart valve infections; persistent bacteremia; or bacteremia in patients on dialysis
- Substantial morbidity and approximately 20%
   30-day mortality<sup>2</sup>
- Limited antibiotic treatment options with only two approved treatments for SAB in the US that cover both MSSA and MRSA, i.e. vancomycin and daptomycin

### Causes and consequences of SAB



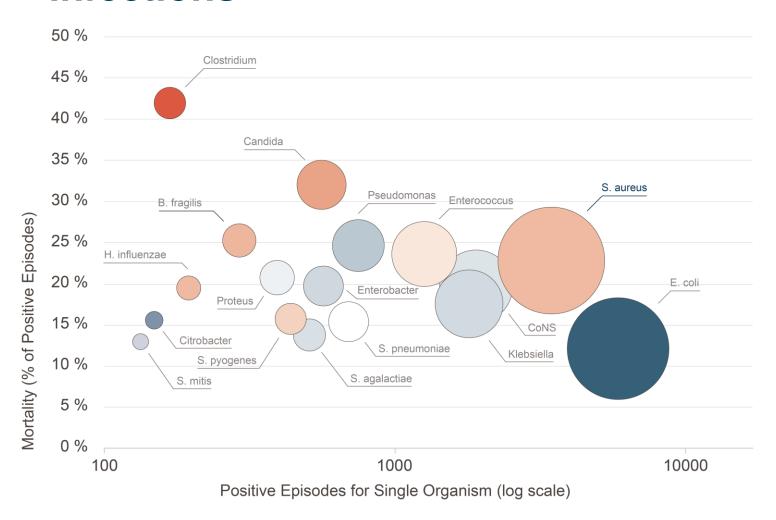
Adapted from Edwards AM et al. Trends Microbiol. 2011;19:184-190.

<sup>2</sup> Hamed K et al. Future Microbiol. 2020;15:35-48. MRSA: methicillin-resistant *Staphylococcus aureus* MSSA: methicillin-susceptible *Staphylococcus aureus* 



<sup>&</sup>lt;sup>1</sup> MMWR, 2019;68:214–219.

# SAB — Highest disease burden among bloodstream infections



- Circle areas reflect total number of deaths
- Color coding represents the risk of dying from the pathogen relative to a control

Adjusted Mortality OR



Adapted from: Verway M et al. J Clin Microbiol. 2022;60:e0242921.

# **ERADICATE** — The largest phase 3 registrational study conducted in SAB

- ERADICATE is the largest phase 3 study conducted for registrational purposes of a new antibiotic treatment in Staphylococcus aureus bacteremia.
- The randomized, double-blind, multicenter phase 3 study was a global study performed in 60 study centers in 17 countries from August 2018 to March 2022.
- 390 patients were randomized to ceftobiprole or daptomycin, with or without intravenous aztreonam for coverage of Gram-negative pathogens, for up to 42 days of treatment.
- Patient characteristics in the 387 patients included in the modified intent-to-treat (mITT) population were balanced between the treatment groups.
- Primary objective of demonstrating non-inferiority compared to daptomycin was achieved, similar outcomes observed for secondary endpoints.

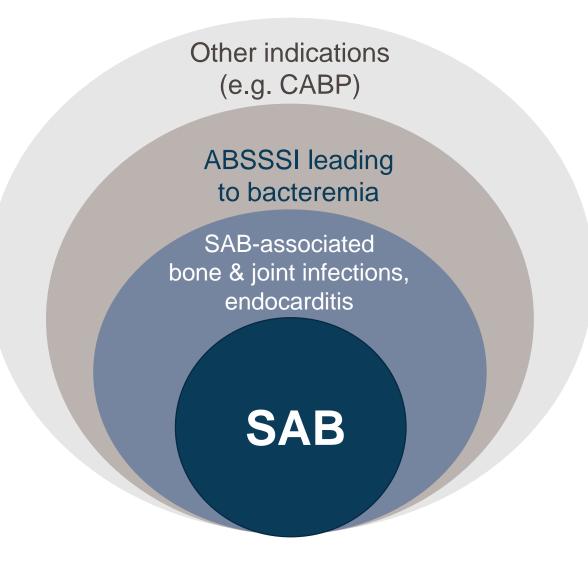
### Ceftobiprole — Place in therapy

- Excellent treatment option in difficult-to-treat patients presenting to the hospital with severe infections, especially
  when the clinician suspects involvement of Gram-positive pathogens including Staphylococcus aureus
- Single agent first-line bactericidal broad-spectrum therapy with proven efficacy in SAB, ABSSSI and CABP, enabling to treat these vulnerable patients effectively early in their disease to achieve recovery
- Ceftobiprole is differentiated versus competitors in various clinically important aspects, including:
  - The strong, bactericidal activity against MSSA and MRSA
  - A robust Gram-negative coverage
  - Efficacy demonstrated in pulmonary infections in phase 3 studies
  - The renal safety profile
  - The low propensity for resistance development

# Focused launch in area of highest unmet medical with expansion opportunities

### **Patient potential in the United States**

- Staphylococcus aureus bacteremia (SAB):
   130,000 cases
- Acute bacterial skin and skin structure Infections (ABSSSI): 600,000 cases
- Community-acquired bacterial pneumonia (CABP):
   800,000 cases





**Financials & Outlook** 

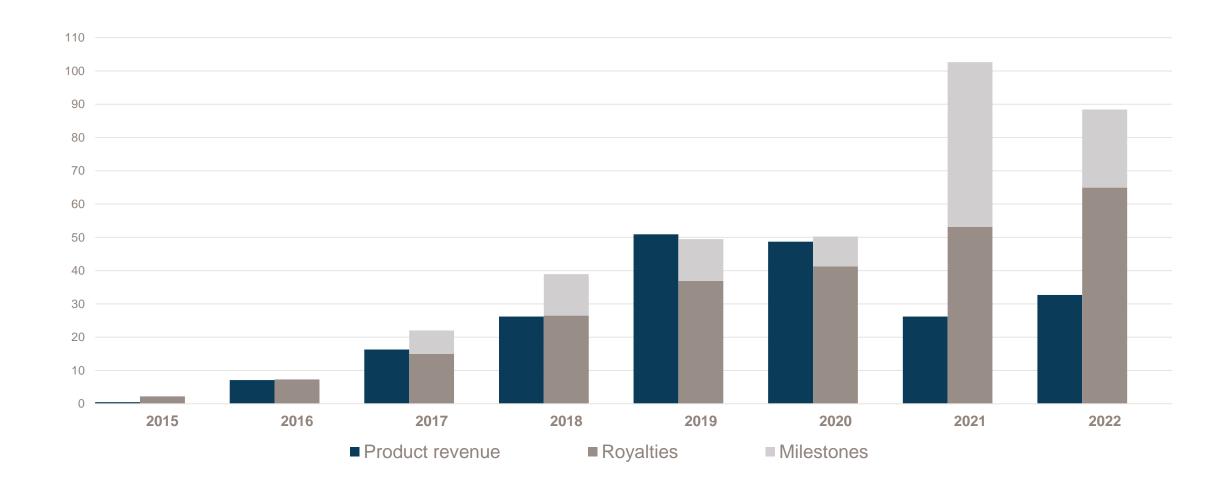


### **Exceeded guidance – Strong financial results 2022**

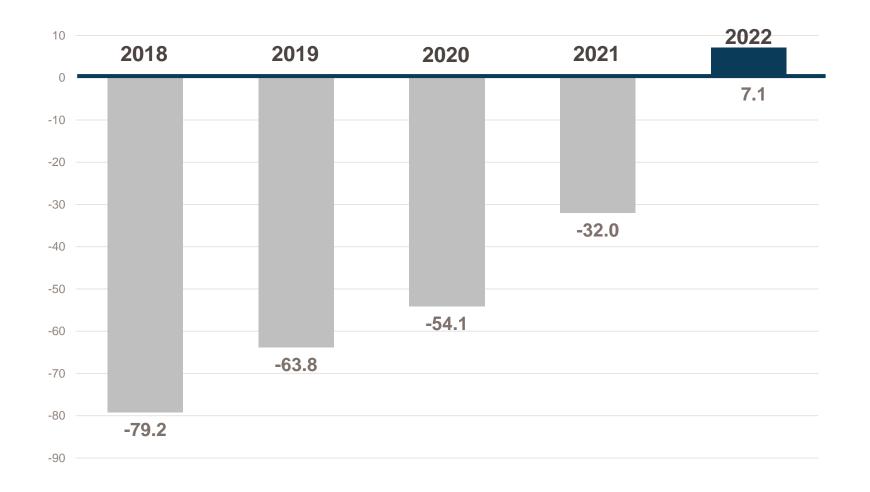
In CHF mn	FY 2022 (actual)	FY 2022 (guidance)	
Cresemba & Zevtera related revenue	122.3	98 – 104	
Royalty income	65.0	~59	
Total revenue	147.8	116 – 122	
Cost of products sold Operating expenses	24.6 104.6	21 – 24 ~110	
Operating profit/(loss)	18.5	(10 – 15)	

Note: Consistent rounding was applied.

### Cresemba and Zevtera revenue breakdown (in CHF mn)



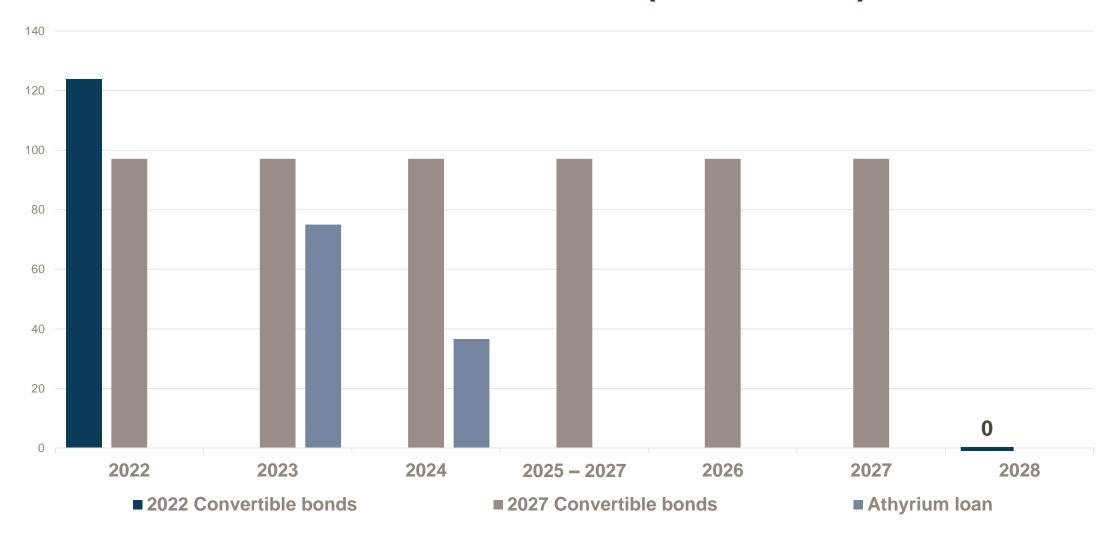
## Cash flows from operating activities (in CHF mn)



Note: Consolidated figures in conformity with US GAAP; rounding applied consistently



### Continued reduction of debt level (in CHF mn)



Note: Figures as of the beginning of the fiscal year; rounding applied consistently



# 2023 guidance – Continued growth in Cresemba & Zevtera related revenue and significant increase in profitability\*

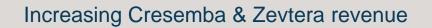
In CHF mn	FY 2023e (guidance)	FY 2022	
Cresemba & Zevtera related revenue	145 – 148	122.3	
Royalty income	~74	65.0	
Total revenue	155 – 158	147.8	
Cost of products sold Operating expenses	25 – 28 ~80	24.6 104.6	
Operating profit	45 – 50	18.5	
Net profit	36 – 41	12.1	

<sup>\*</sup>Excluding the impact of in-licensing activities



### **Key milestones**

Product	H1 2023	H2 2023	H1 2024
Ceftobiprole (Zevtera)		US NDA submission (Q3)	Regulatory decision in the US (Q2)
			Executing US partnership (before regulatory decision)
Isavuconazole (Cresemba)	Launched in Japan 🗸		
		Pediatric submission	



In-licensing of anti-infectives (2023 and beyond)

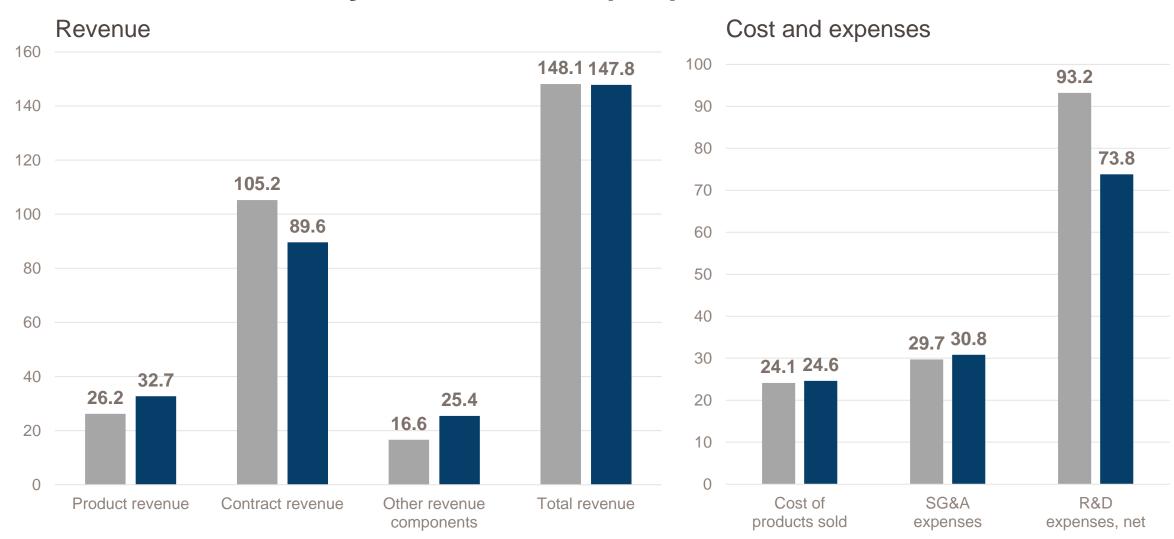
Advancement of preclinical anti-infective assets

## Appendix

FY 2021

FY 2022

## Financial summary, in CHF mn (1/2)

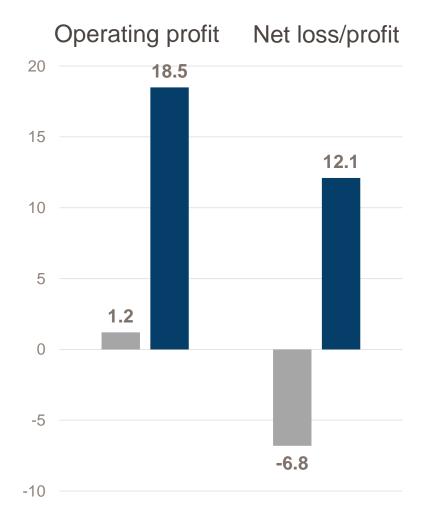


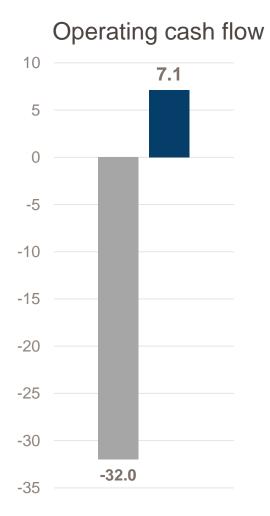
Note: Consolidated figures in conformity with US GAAP; rounding applied consistently

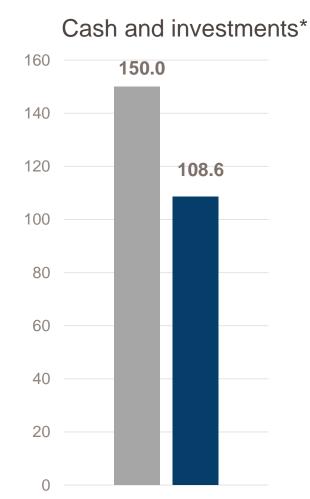


## Financial summary, in CHF mn (2/2)





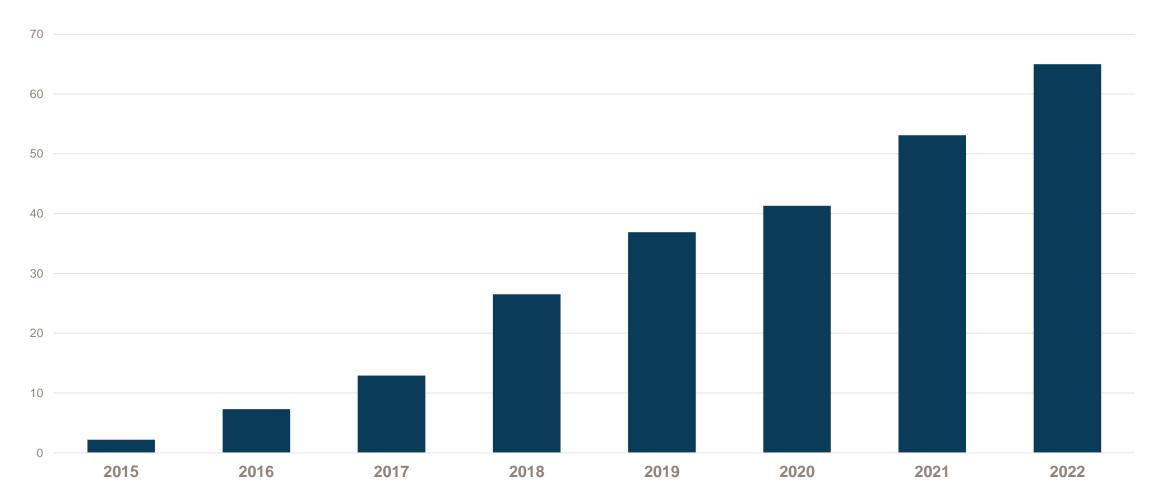




Note: Consolidated figures in conformity with US GAAP; rounding applied consistently, \*Cash, cash equivalents, restricted cash and investments



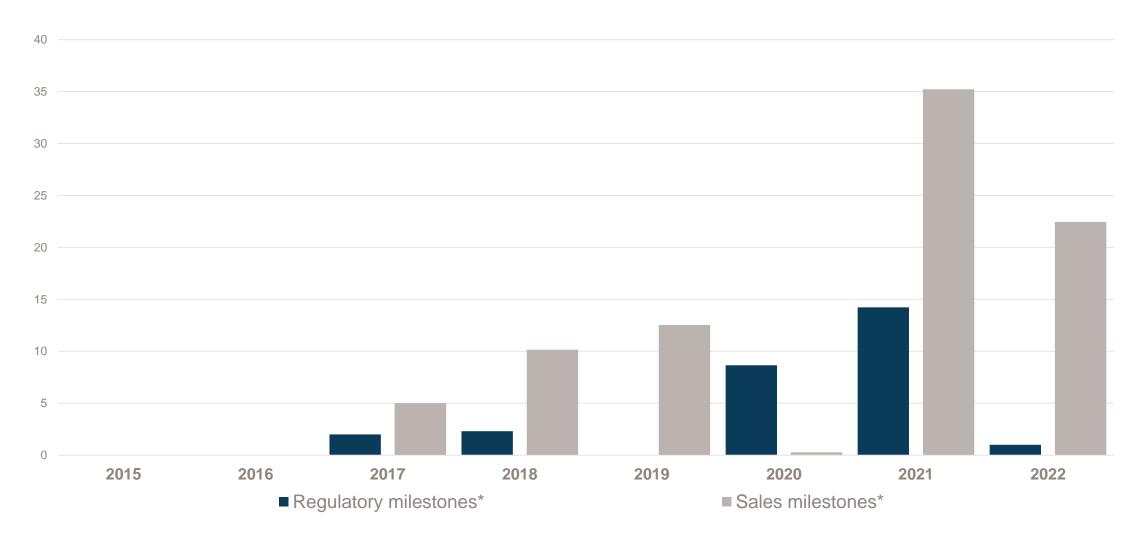
# Cresemba royalty income growth reflects continued commercial success in key territories (in CHF mn)



Note: Consolidated figures in conformity with US GAAP; rounding applied consistently



## Regulatory and sales milestones (in CHF mn)

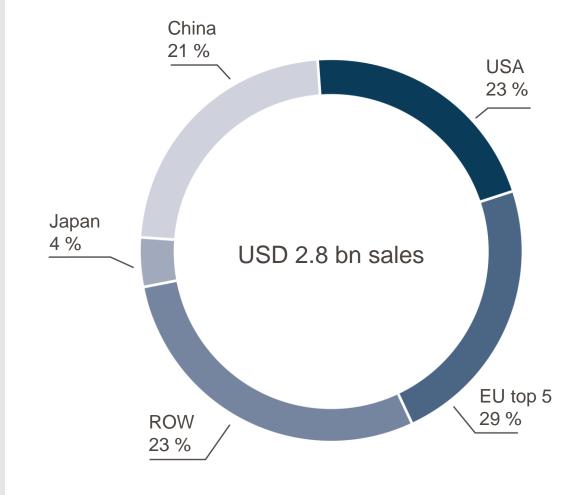


<sup>\*</sup>Combined from license partners and distributors



## Significant sales of bestin-class antifungals in all major regions — Covered by our partnerships

USD 2.8 bn sales of best-in-class antifungals\* (MAT Q4 2022)



<sup>\*</sup> Best-in-class antifungals: Cresemba (isavuconazole), posaconazole, voriconazole, AmBisome, anidulafungin, caspofungin, micafungin



MAT: Moving annual total; Source: IQVIA Analytics Link, December 2022

### Cresemba pediatric development

- A pediatric development plan comprising 2 clinical studies was agreed with the FDA and the EMA
- Successful completion of the plan potentially results in 2 years additional market exclusivity in Europe and 6 months additional market exclusivity in the USA
- Clinical studies were undertaken in collaboration with Basilea's US partner Astellas and completed enrollment in August 2022

- FDA/EMA submission to propose pediatric labelling and request extension of exclusivity is planned in H2 2023
- Pediatric label approval is expected in H2 2024 in order to gain the exclusivity extension in both territories

Study	Age group	Study design	Study identifier
<b>Study 1</b>	1 – 17 years	Phase 1, open-label, multicenter, non-comparative pharmacokinetics and safety study of intravenous and oral isacuvonazole sulfate  > Study completed in 2019 (49 patients enrolled)	Clinicaltrials.gov
9766-CL-0046	i.v. and capsules*		NCT03241550 <sup>†</sup>
<b>Study 2</b>	1 – 17 years	Phase 2, open-label, non-comparative, multicenter study to evaluate the safety and tolerability, efficacy and pharmacokinetics of isavuconazonium sulfate for the treatment of invasive aspergillosis or invasive mucormycosis  > Study completed in 2022 (31 patients enrolled)	Clinicaltrials.gov
9766-CL-0107	i.v. and capsules*		NCT03816176

<sup>&</sup>lt;sup>†</sup>Arrieta AC, et al. Safety, Tolerability, and Population Pharmacokinetics of Intravenous and Oral Isavuconazonium Sulfate in Pediatric Patients. Antimicrob Agents Chemother. 2021;65:e0029021.

<sup>\*</sup>Capsules only studied in children 6 years or older



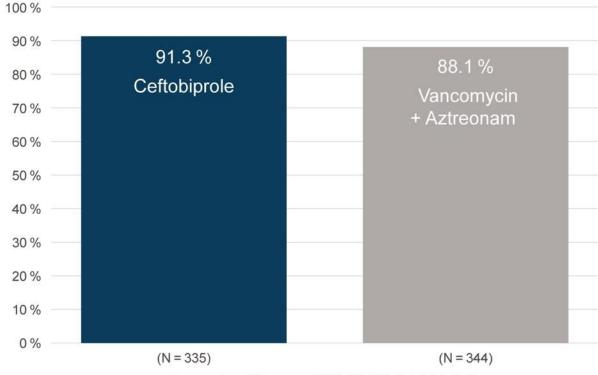
# Ceftobiprole — Positive phase 3 results reported in ABSSSI

Results showing non-inferiority of ceftobiprole to vancomycin plus aztreonam for the primary and secondary endpoints<sup>1</sup>



## Early clinical response at 48–72h after start of treatment (ITT population)

Patients with early clinical success at 48 – 72 hours (%)



Proportion difference (95% CI) (%): 3.3 (-1.2, 7.8)

<sup>1</sup> Overcash JS et al. Clin Infect Dis. 2021;73:e1507-e1517. ITT: intent-to-treat

Pre-defined limit of non-inferiority = lower limit of 95 % Cl for difference > -10 %



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38

### Ceftobiprole — Positive phase 3 results reported in **ABSSSI**

Key topline study<sup>1</sup> results showing non-inferiority of ceftobiprole to vancomycin plus aztreonam for the primary and secondary endpoints

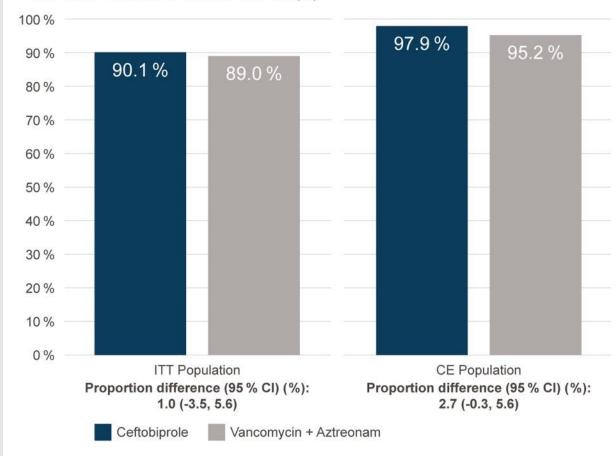


<sup>1</sup> NCT03137173 ABSSSI: Acute bacterial skin and skin structure infections

### (basilea)

### Investigator-assessed clinical success at test-of-cure (TOC) 15-22 days after randomization (ITT, CE populations)

Patients with clinical success at the TOC visit (%)

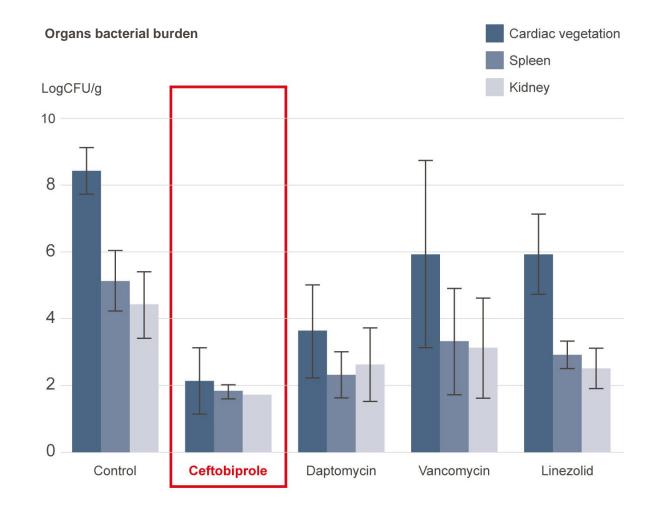


CE: clinically evaluable; ITT: intent-to-treat

# Ceftobiprole key attributes for SAB treatment

- Advanced generation cephalosporin with broad spectrum bactericidal activity against Gram-positive organisms, including MRSA and MSSA, and Gramnegative organisms<sup>1</sup>
- Efficacy demonstrated in phase 3 clinical studies in acute bacterial skin and skin structure infections, and pneumonia<sup>1,2</sup>
- Superior activity profile in multiple in vivo models of severe infection compared to vancomycin and daptomycin<sup>3</sup>
- Low propensity for resistance development<sup>1</sup>
- Established safety profile consistent with the cephalosporin class, demonstrated in both adult and pediatric patients<sup>1,2,4</sup>

### Comparative efficacy in a rabbit model of endocarditis



Organism titers in cardiac vegetations, spleens and kidneys of untreated and antibiotic treated rabbits infected with MRSA<sup>3</sup>



<sup>&</sup>lt;sup>1</sup>Syed YY. Drugs. 2014;74:1523-1542.

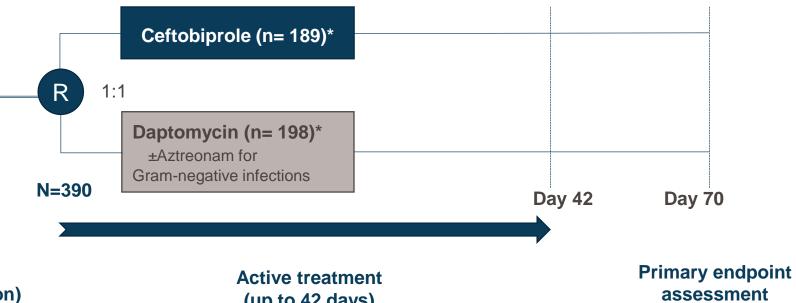
<sup>&</sup>lt;sup>2</sup>Overcash JS et al. Clin Infect Dis. 2021;73:e1507-e1517.

<sup>&</sup>lt;sup>3</sup>Tattevin P et al. Antimicrob Agents Chemother. 2010;54:610-613.

<sup>&</sup>lt;sup>4</sup>Rubino CM et al. Pediatr Infect Dis J. 2021;40:997-1003.

### ERADICATE — SAB Study design

- Patients age ≥ 18 years
- SAB based on ≥1 positive blood culture within 72 h of randomization
- Confirmed or suspected complicated SAB or definitive right-sided infective endocarditis
- Requirement for ≤ 42 days of antibacterial treatment



**Screening assessments** (up to 72 hours prior to randomization) (up to 42 days)

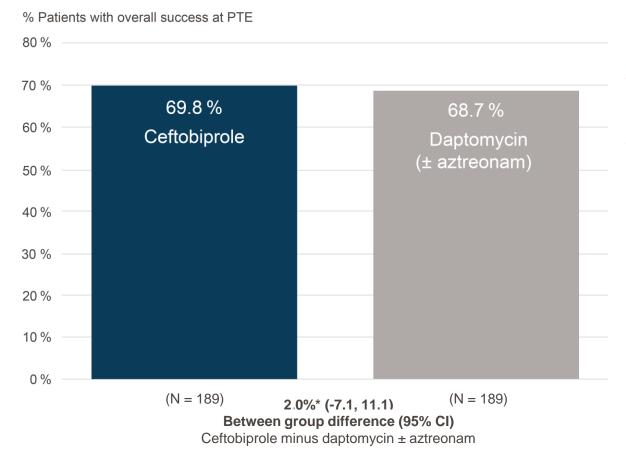
Adapted from Hamed K et al. Future Microbiol. 2020;15:35-48

\*Ceftobiprole was administered 500 mg q6h on Day 1-8 and 500 mg q8h from Day 9 onwards. Daptomycin was administered at 6mg/kg up to 10 mg/kg q24h. Three patients in the ITT population were excluded from the modified intent-to-treat population (mITT): One patient was randomized but not dosed, and two patients did not have a positive S. aureus blood culture at baseline



### Primary endpoint in SAB is achieved

### (DRC assessed overall success at PTE in mITT population)

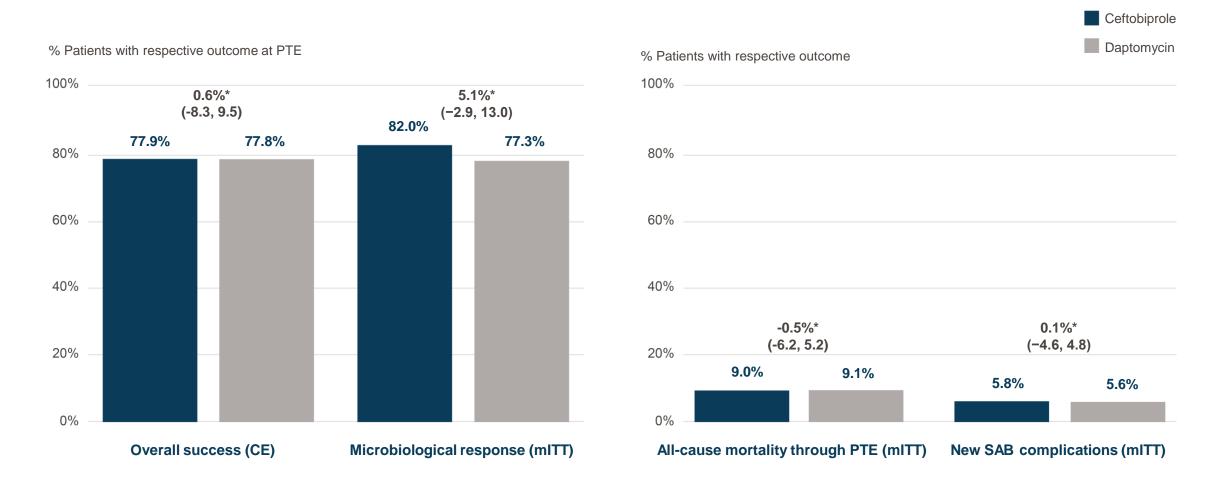


- Non-inferiority demonstrated based on the pre-defined non-inferiority margin of 15%
- Consistent results in key subgroups and various categories of underlying conditions:
  - MSSA or MRSA bloodstream infections at baseline
  - Skin and skin structure infections
  - Abdominal abscesses
  - Chronic dialysis
  - Septic arthritis
  - Osteomyelitis
  - Definite right-sided infective endocarditis
  - Patients with persistent SAB

DRC: Data review committee; PTE: Post-treatment evaluation visit at 70 days post-randomization \*Cochran-Mantel-Haenszel (CMH) weights method adjusted for actual stratum (dialysis status and prior antibacterial treatment use)



## Secondary efficacy outcomes in SAB are similar



<sup>\*</sup> Between-group difference (95%CI) of ceftobiprole minus daptomycin (± aztreonam), adjusted for actual stratum (dialysis status and prior antibacterial treatment use) using Cochran-Mantel-Haenszel weights method. CE: Clinically evaluable population.



### **ERADICATE** — Further SAB results

- Median time to Staphylococcus aureus bloodstream clearance
  - MSSA: 3 days with ceftobiprole and 4 days with daptomycin
  - MRSA: 5 days for both ceftobiprole and daptomycin
- Emergence of resistance under treatment was observed in three patients on daptomycin.
   No emergence of resistance under treatment was observed with ceftobiprole
- Observed ceftobiprole safety and tolerability profile is consistent with previous phase 3 studies and the postmarketing experience
- Ceftobiprole was well tolerated and overall rate of adverse events similar between the ceftobiprole and daptomycin groups; gastrointestinal side effects were more frequent with ceftobiprole (mainly driven by mild to moderate nausea)

## Glossary

ABSSSI: Acute bacterial skin and skin structure infections

BARDA: Biomedical Advanced Research and Development Authority

CABP: Community-acquired bacterial pneumonia

CE: Clinically evaluable

CARB-X: Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator

DRC: Data review committee

HABP: Hospital-acquired bacterial pneumonia

ITT: Intent-To-Treat

i.v.: Intra**v**enous

mITT: Modified intent-to-treat

MSSA: Methicillin-susceptible Staphylococcus aureus

MRSA: Methicillin-resistant Staphylococcus aureus

NDA: New Drug Application

OR: Odds ratio

PTE: Post-treatment evaluation

QIDP: Qualified Infectious Disease Product

SAB: Staphylococcus aureus bacteremia

SPA: Special Protocol Assessment

US GAAP: United States Generally Accepted Accounting Principles

VAP: Ventilator-associated pneumonia

### Disclaimer and forward-looking statements

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