Theravance Biopharma

Medicines That Make a Difference®

Theravance Biopharma, Inc. (NASDAQ: TBPH)

Investor Presentation
February 2016

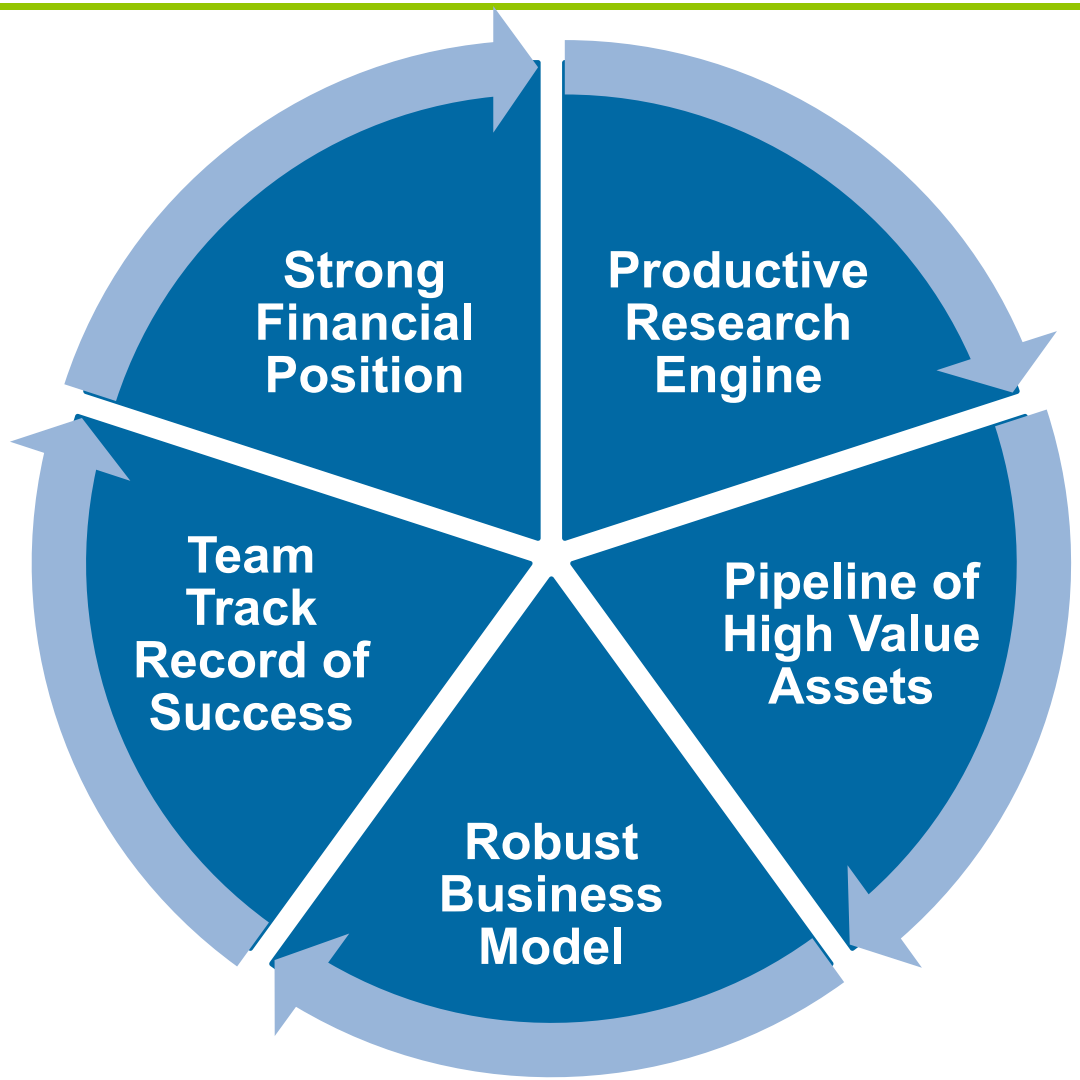
Cautionary Statement Regarding Forward-Looking Statements

Under the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995, the company cautions investors that any forward-looking statements or projections made by the company are subject to risks and uncertainties that may cause actual results to differ materially from the forward-looking statements or projections.

Examples of forward-looking statements in this presentation include statements relating to the company's business plans and objectives, including financial and operating results, potential partnering transactions and sales targets, the company's regulatory strategies and timing and results of clinical studies, and the potential benefits and mechanisms of action of the company's product and product candidates (including their potential as components of combination therapies).

The company's forward-looking statements are based on the estimates and assumptions of management as of the date of this presentation and are subject to risks and uncertainties that may cause the actual results to be materially different than those projected, such as risks related to delays or difficulties in commencing or completing clinical studies, the potential that results from clinical or non-clinical studies indicate product candidates are unsafe or ineffective (including when our product candidates are studied in combination with other compounds), delays or failure to achieve and maintain regulatory approvals for product candidates, risks of collaborating with third parties to discover, develop and commercialize products, risks associated with establishing and maintaining sales, marketing and distribution capabilities, and the finalization of financial results for the three months and twelve months ended December 31, 2015 and the audit of those results by us and our independent auditors may result in changes from the expected results disclosed in this presentation. Other risks affecting the company are described under the heading "Risk Factors" and elsewhere in the company's Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 12, 2015, and other periodic reports filed with the SEC.

Theravance Biopharma Investment Highlights



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Optimizing Pipeline Value by Leveraging Partnerships and Commercial Infrastructure

Program	Therapeutic Area	Collaborator	Early	Mid	Late	Marketed
VIBATIV® (telavancin) cSSSI, HABP/VABP	Anti-Infective	Multiple Partners (ex-US)				
Telavancin Bacteremia, Concurrent Bacteremia w/ cSSSI & HABP/VABP	Anti-Infective	Multiple Partners (ex-US)				
Revefenacin (TD-4208) COPD & Other Respiratory Diseases	Respiratory	Mylan				
Axelopran (TD-1211), Axelopran/Opioid FDC OIC, Pain	GI, Pain					
Velusetrag (TD-5108) Gastroparesis	GI	Alfa Wassermann (ex-US)				
TD-9855 (NSRI) nOH, Fibromyalgia	CV, Pain					
TD-8954 ICU IV Prokinetic	GI					
TD-6450 (NS5A) HCV	Anti-Infective	Trek Therapeutics				
TD-1792 & TD-1607 Gram+ MRSA	Anti-Infective	R-Pharm (TD-1792, ex-US)				
TD-0714 (NEP Inhibitor) Chronic/Acute HF, CKD, Hypertension	Cardiovascular, Renal					
TD-1473 (JAK Inhibitor) Ulcerative Colitis, Other Inflammatory Intestinal Disorders	GI					
Closed Triple (FF/UMEC/VI) COPD	Respiratory	GSK & Innoviva, Inc.*				
MABA/MABA ICS COPD, Asthma	Respiratory	GSK & Innoviva, Inc.*				

Pipeline Assets

Financial Assets

Late-stage = Regulatory submission filed, Phase 3 development, Phase 3-ready; Mid-stage = assets between Phase 1 and Phase 2b; Early-stage = pre-clinical assets

*TBPH holds economic interest in future payments that may be made by Glaxo Group Limited (GSK) relating to certain programs, including "Closed Triple" (FF/UMEC/VI) (Fluticasone Furoate/Umeclidinium/Vilanterol), MABA/FF ('081), MABA monotherapy and other future products that may be combined with VI or MABA '081; Innoviva, Inc. (formerly Theravance, Inc.)

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2016 Focus

Program	Phase 1	Phase 2	Phase 3	Filed	Approved
VIBATIV® (telavancin)					
• cSSSI, HABP/VABP					
• sNDA Concurrent Bacteremia & cSSSI					
• sNDA Concurrent Bacteremia & HABP/VABP					
• Phase 3 Registrational Study – Bacteremia					
Revefenacin (TD-4208)					
• Phase 3 Efficacy Studies (2) – COPD					
• Phase 3 Long-Term Safety Study – COPD					
TD-0714 (NEP Inhibitor)					
• Phase 1 Study					
TD-1473 (JAK Inhibitor)					
• Phase 1 Study					

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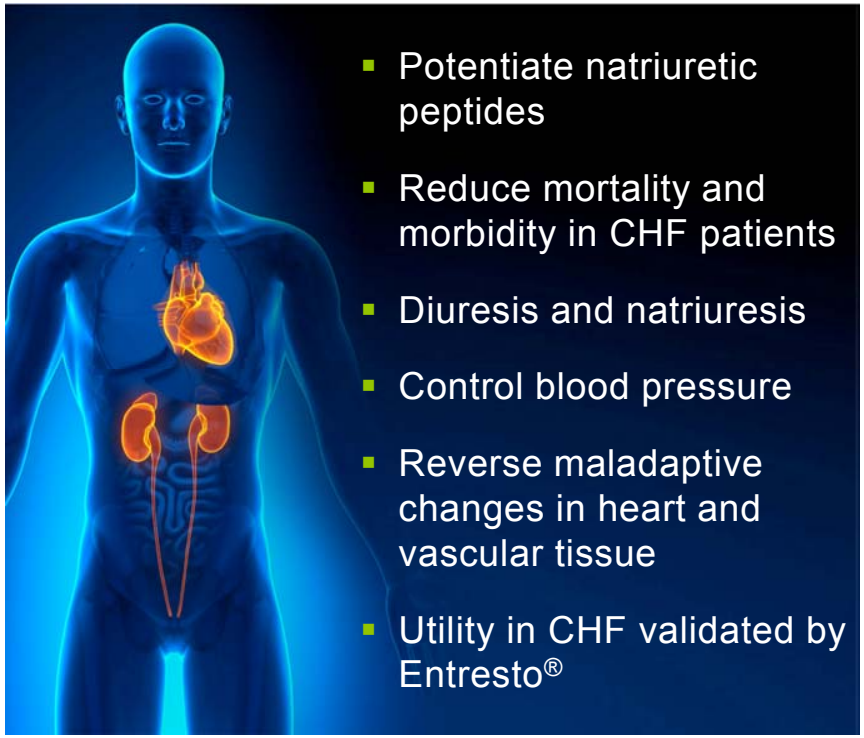
Neprilysin Inhibitor (NEPi) Program

Potential Best-in-Class Therapeutic for Cardiovascular and Renal Disease

Best-in-Class NEPi Could Improve Treatment Regimens for Cardiovascular & Renal Diseases

Utility of NEP Inhibitors (NEPi)



- Potentiate natriuretic peptides
- Reduce mortality and morbidity in CHF patients
- Diuresis and natriuresis
- Control blood pressure
- Reverse maladaptive changes in heart and vascular tissue
- Utility in CHF validated by Entresto®

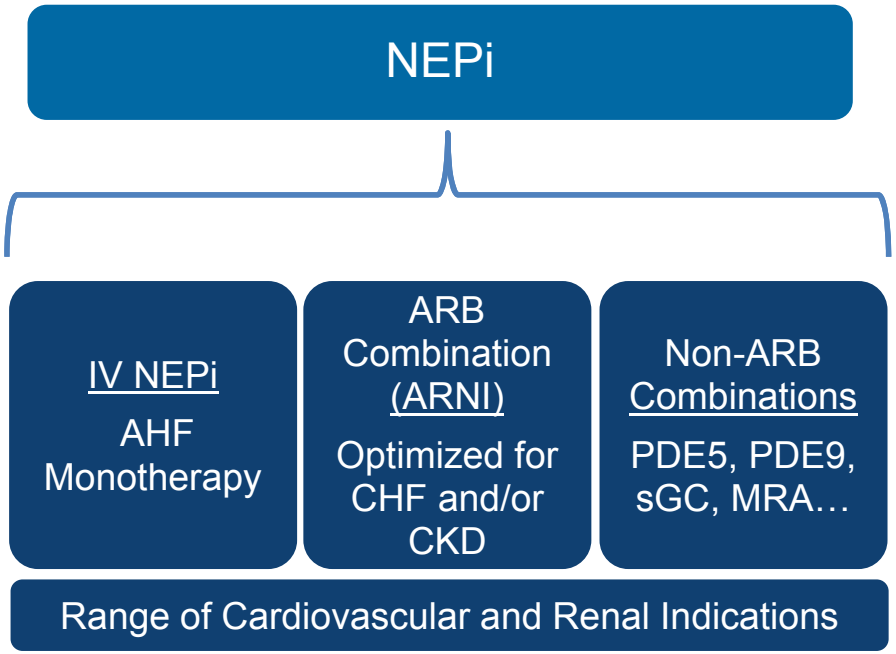
Large Market Opportunities

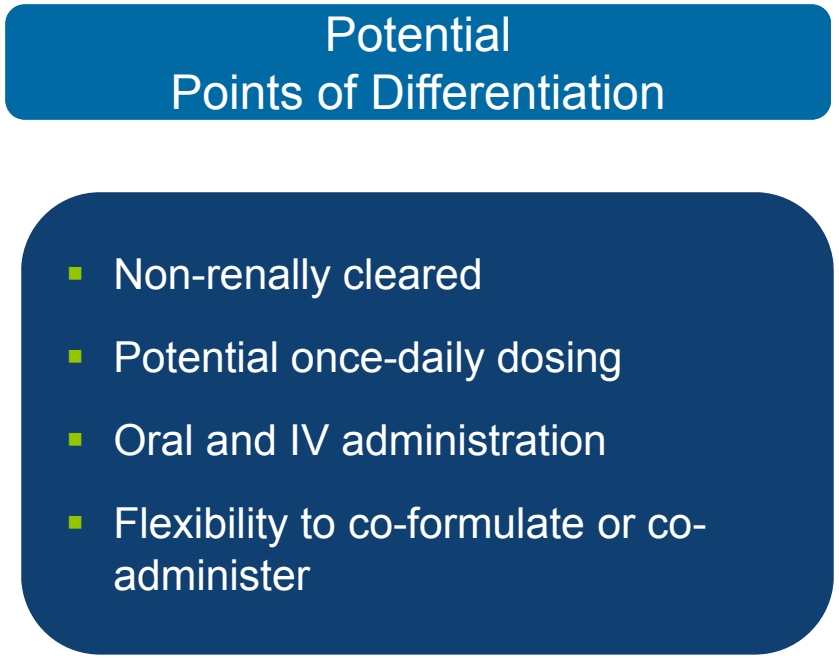
Neprilysin Inhibitor (NEPi)

- **Acute Heart Failure (AHF)**: 1 million hospitalizations annually
- **Chronic Heart Failure (CHF)**: 6 million patients diagnosed
- **Chronic Kidney Disease**: 26 million people
- **Treatment-Resistant Hypertension**: 6 million people

↗ Significant opportunity remains for a next-generation NEP inhibitor offering once-daily dosing, combination flexibility and enhanced tolerability

TBPH NEPi Program: Differentiated & Versatile Platform with Potential for Broad Applicability Beyond CHF





Phase 1 Clinical Trial Initiated December 2015

Additional development candidates advancing

Key value inflection Phase 1/2a

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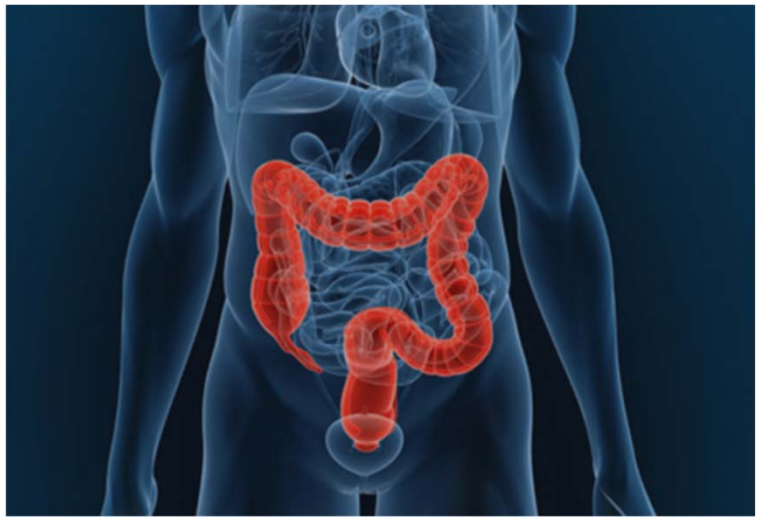
TD-1473

Oral GI-Targeted Pan-JAK Inhibitor for Ulcerative Colitis and Other Inflammatory Intestinal Diseases

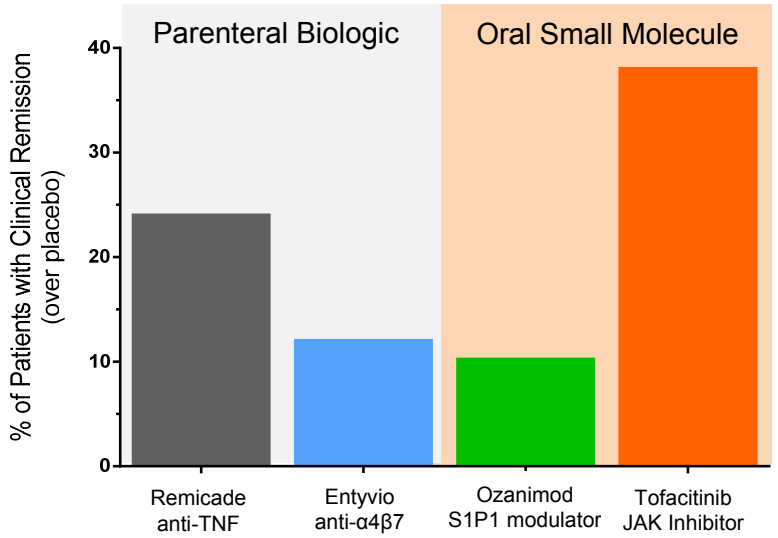
Significant Need Remains for Therapies to Treat Moderate to Severe Ulcerative Colitis (UC)

UC is a Complex Disorder Involving Multiple Inflammatory Mediators



- ~700K patients in the US[1]
- Current medicines have limited efficacy, lose efficacy over time and carry risk for infectious and malignant adverse effects

Robust Clinical Remission of UC with JAK Inhibition



- JAK inhibitors currently under development for UC may carry systemic liabilities
- An oral, **GI-targeted** JAK inhibitor may offer superior efficacy and safety with minimal side effects

[1] www.ccfa.org Clinical data: Not head to head comparisons. Clinical data sources: Remicade & Entyvio, Prescribing Information; Ozanimod, Sandborn et al., 2015 Tofacitinib, Sandborn et al., 2012.

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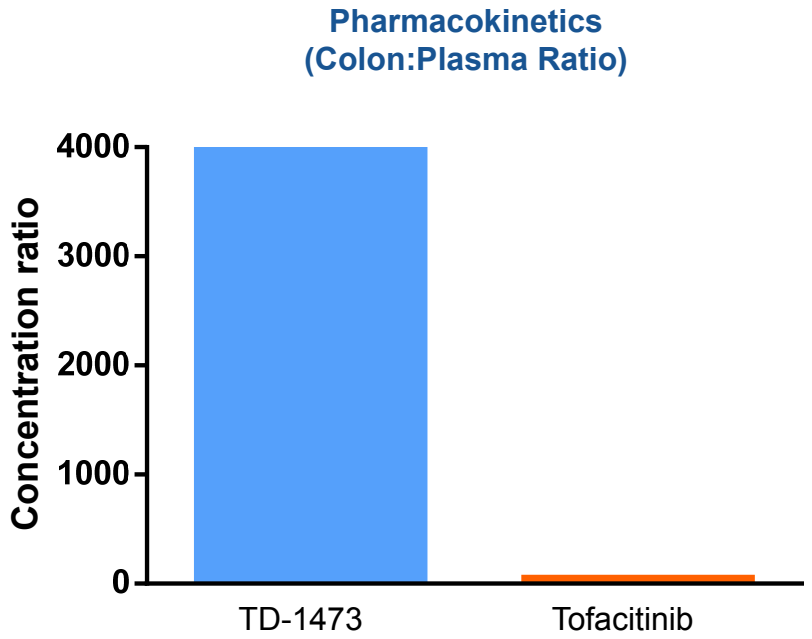
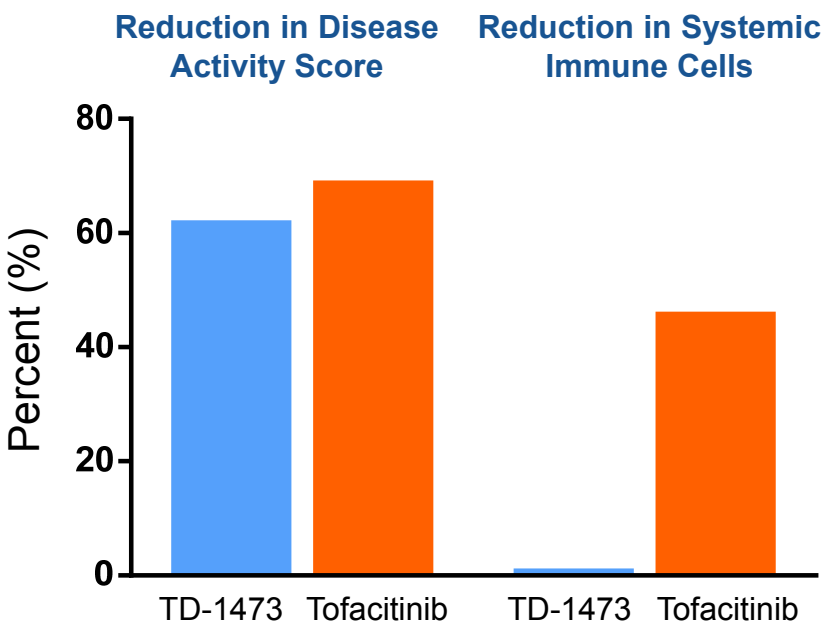
TD-1473: Oral GI-Targeted JAK Inhibitor with the Potential for Robust Efficacy and Minimal Side Effects

TD-1473 Exhibits GI-Restriction after Oral Administration in Rodents



TD-1473 is Active in Rodent Colitis Model without Systemic Effects



Phase 1 Clinical Trial Initiated December 2015

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Revefenacin (TD-4208)

Nebulized Long-Acting Muscarinic Antagonist (LAMA)

Compelling Need for Once-Daily Nebulized LAMA

Enduring Patient Niche and Significant Market Opportunity

Unmet Need for Nebulized LAMA Therapy

- Once-daily LAMAs are **first-line therapy** for moderate to severe COPD[1]
- **No nebulized LAMAs available today**; only available in handheld devices

Enduring Patient Niche with Potential for Premium Pricing

- **>100M patient treatment days** in nebulized COPD segment[3]
- **9%** of COPD patients currently use nebulizers for ongoing maintenance therapy[2]
- **41%** of COPD patients use nebulizers at least occasionally for bronchodilator therapy[2]
- Pricing in branded LA nebulized segment ~ 2x premium to handheld Spiriva[3]

Significant Market Opportunity

- Revefenacin **complementary to existing nebulized LABA** treatment options
- Mylan brings commercial strength in nebulized segment

[1] Global Strategy for Diagnosis, Management, and Prevention of COPD
COPD = Chronic Obstructive Pulmonary Disease
[2] TBPH market research (N = 160 physicians); Refers to US COPD patients

[3]Estimate derived from use of information under license from IMS Health information service: NSP for period MAT May, 2015. Includes LABA, SAMA and SAMA/SABA therapy. Excludes nebulized SABAs.

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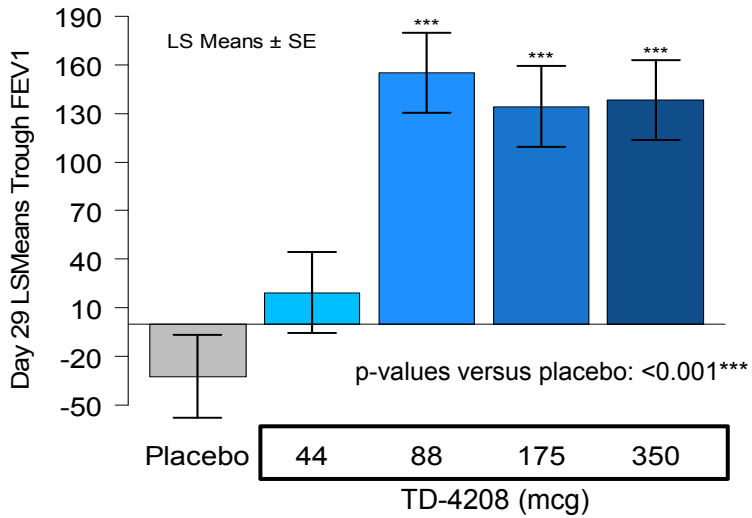
Revefenacin (TD-4208) Phase 3 Program

Phase 3 Program

- Two replicate 3-month efficacy studies expected to read-out in Q3 2016
- Single 12-month safety study expected to read-out in 2017
- ~2,300 patients across three studies
- Studies will test two doses: 88 mcg and 175 mcg administered once-daily

Phase 2b Study 0117 Met Primary Endpoint at 88 mcg and Above

- 355 patients with moderate to severe COPD
- Primary endpoint: Change from baseline in trough FEV_1 following 28 days



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Strategic Collaboration with Mylan

Nebulized Revefenacin for COPD and Other Respiratory Diseases

Mylan Brings Commercial Strength in Nebulized Segment

- A world-leader in nebulized therapy
- Expert in manufacturing and marketing of respiratory products

Significant Funding for Theravance Biopharma

- $15M initial payment and $30M equity investment
- Up to $220M in development/commercialization milestones
- TBPH leads US development; fully-funded by Mylan[1]
- Profit share in US; double-digit royalties ex-US

[1] Applies through FDA approval of first product containing 4208

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Medicines That Make a Difference®

VIBATIV® (telavancin)

Commercial, Once-Daily, Dual Mechanism Antibiotic

What is VIBATIV®?

First FDA approved lipoglycopeptide exhibiting concentration-dependent bactericidal activity via a dual mechanism of action that inhibits cell wall synthesis and disrupts membrane barrier function

Active against Gram-positive bacteria, including methicillin-resistant *Staphylococcus aureus* (**MRSA**)

Intravenously administered;
once-daily dosing

Approved in the U.S. for treatment of the following infections in adult patients caused by designated susceptible bacteria:

- Complicated skin and skin structure infections (cSSSI)
- Hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP) caused by susceptible isolates of *Staphylococcus aureus* when alternative treatments are not suitable

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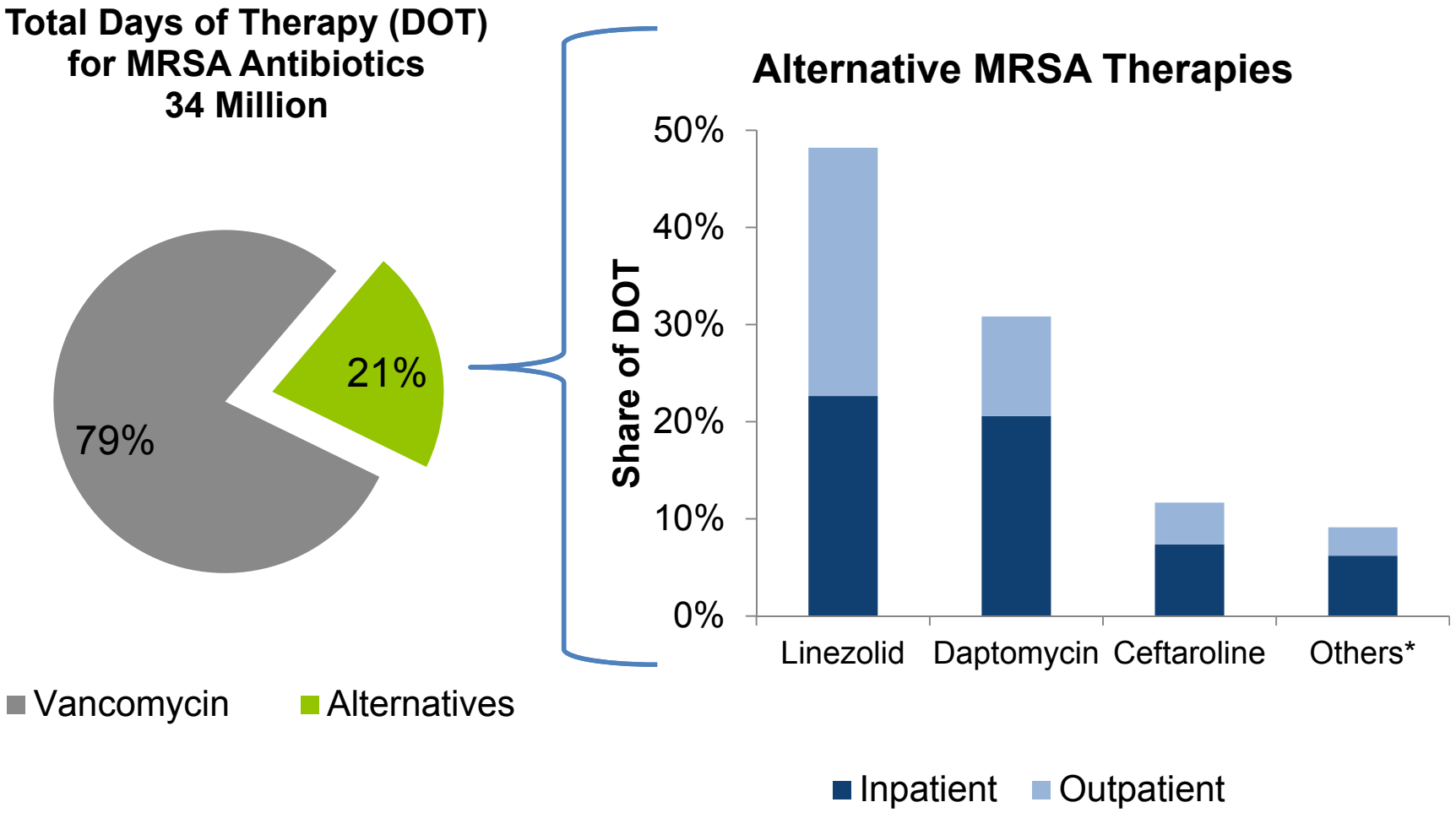
Opportunity Exists for VIBATIV® Among Alternative MRSA Therapies in Current U.S. Market



Source: TBPH estimates based on integrating data from multiple sources (2014)
*Others includes Tygacil and Synercid

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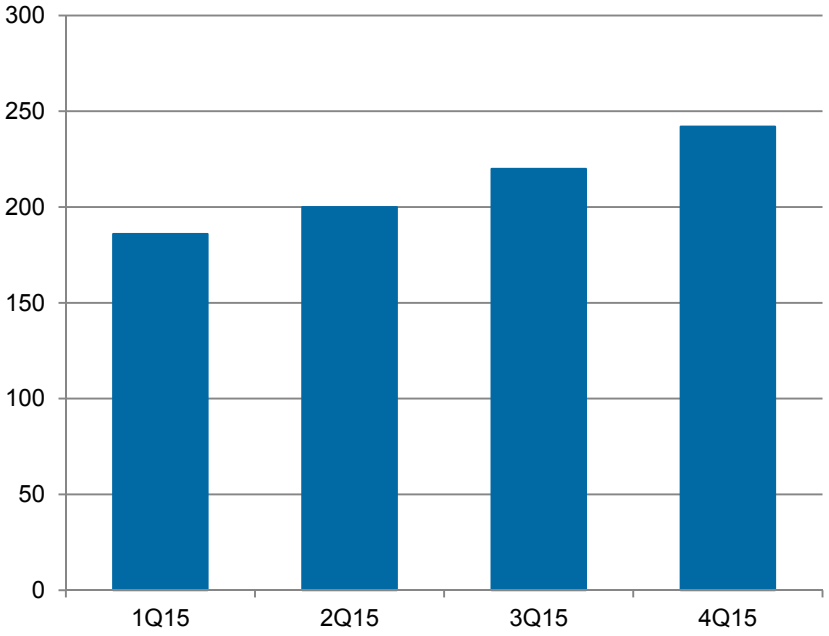
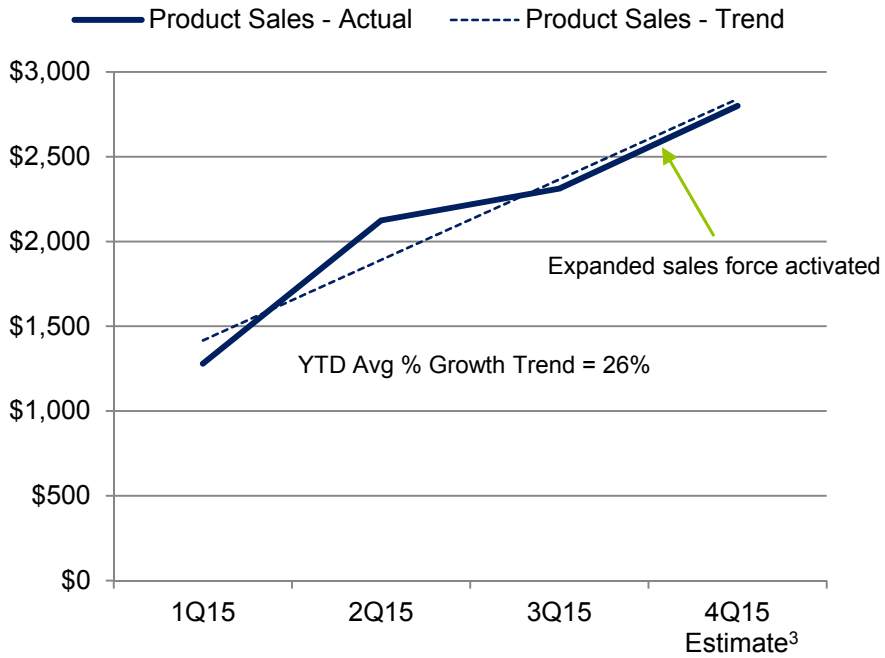
VIBATIV® Commercialization

Steady Growth in Formulary Wins and Product Sales

Cumulative Formulary Wins[1]



US Net Product Sales



Physicians use VIBATIV when[2]

- *"other agents fail"*
- *"need rapid bactericidal activity"*
- *"patients have multiple comorbidities"*
- *"cases have documented resistance"*

[1]Formularies based on field intelligence; [2]TBPH Market Research; [3]Q4 estimated US Net Product Sales range: $2.6 million - $3.0 million

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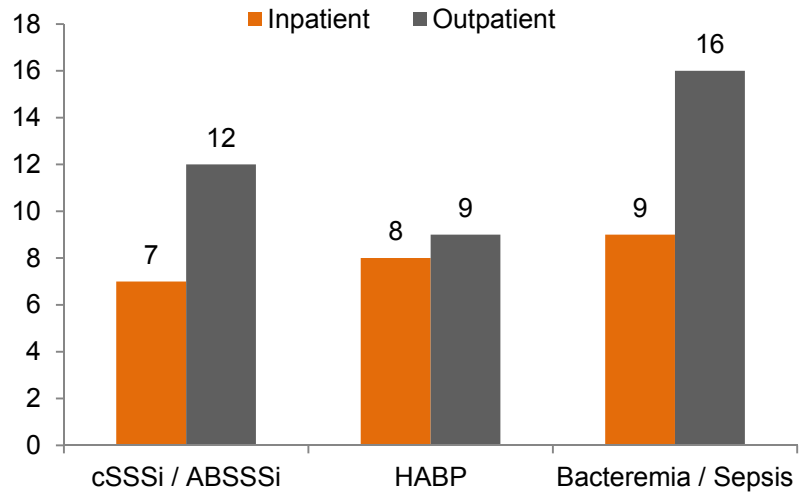
VIBATIV®: Building a Global Brand

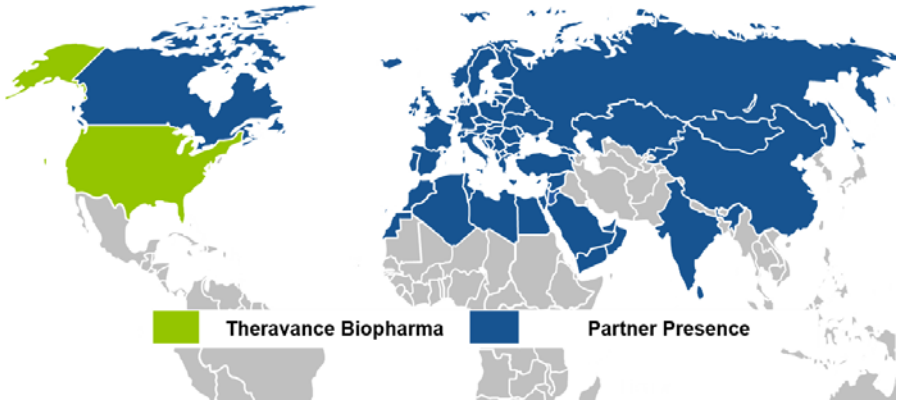
Opportunity for Broadest Set of Indications of Any Branded Anti-MRSA Agent

- sNDA submitted for concurrent bacteremia and HABP/VABP or cSSSI (PDUFA: Q2 2016)
- Phase 3 Registrational Study in Bacteremia
  - ~250 patients, ~70 clinical sites in US & ROW
  - Expected to complete 2017

Average Days of Therapy (DOT)[1]



Leveraging Regional Partnerships to Expand Commercial Reach



- Multiple partnerships in large and growing ex-US markets, including China and India
- Recent marketing authorizations in Canada and Russia; launches expected in 2016

[1]"Treatment Trends®: Hospital Discharge and Outpatient Parenteral Antibiotic Therapy (US)" © June 2014 DR/Decision Resources, LLC. All rights reserved. Reproduction, distribution, transmission or publication is prohibited. Reprinted with permission; Note: This analysis only considers treatment days for patients treated in both inpatient setting & OPAT for each infection type; excluded patients treated w/ OPAT w/o recent hospital or ER; ID specialists responded to "Please estimate duration of therapy, both inpatient therapy and outpatient therapy, for OPAT patients." (n-sizes vary by infection type & inpatient vs. outpatient.)

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Opportunities for Value Creation

Upcoming Key Milestones

Priority Programs:

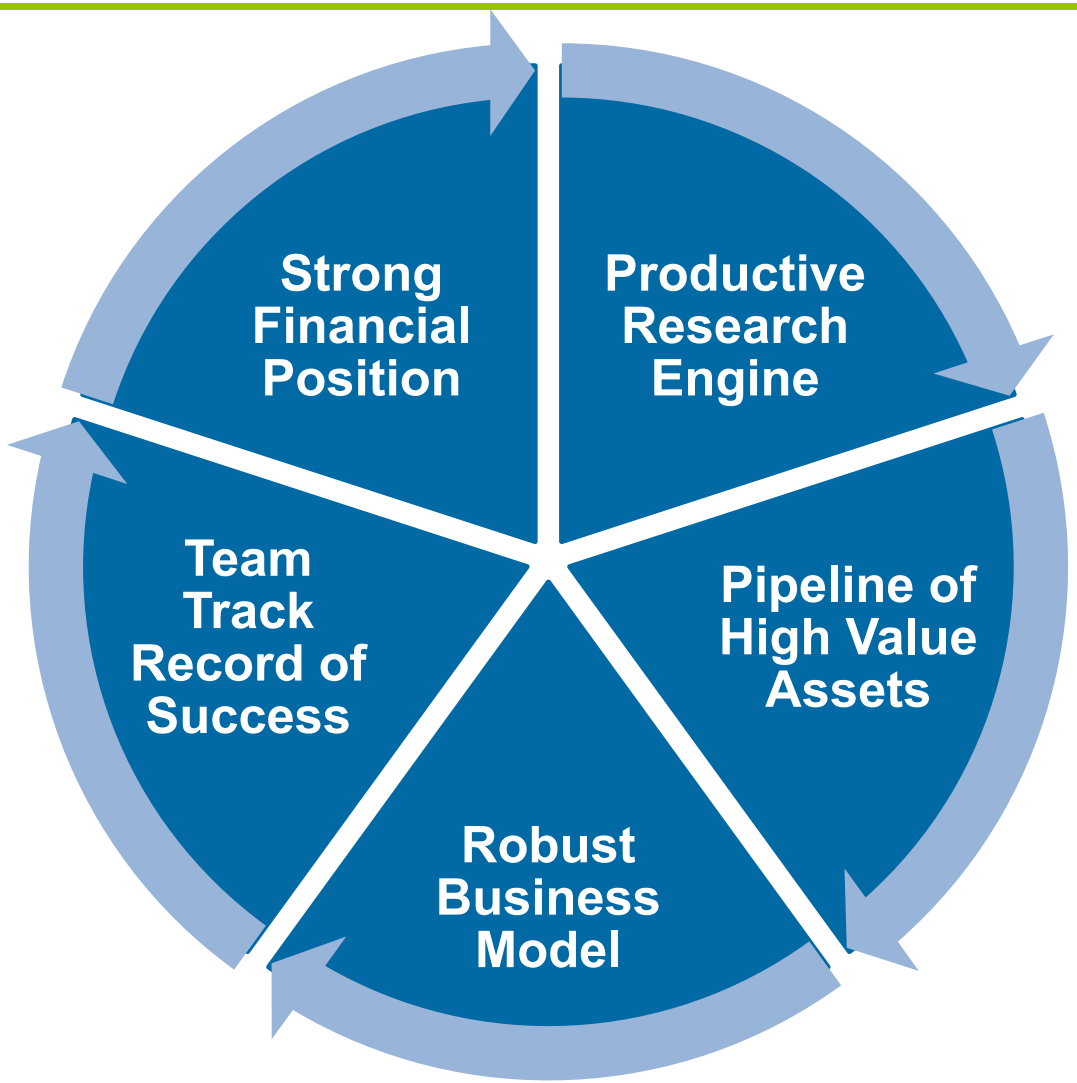
Program	Milestone	Target
TD-0714 (NEP inhibitor)	Complete Phase 1 (incl. target engagement)	2016
TD-1473 (JAK inhibitor)	Complete Phase 1	2016
Revefenacin (TD-4208)	Complete Phase 3 Efficacy Studies	2016
Revefenacin (TD-4208)	Complete Phase 3 LTSS	2017
VIBATIV® (telavancin)	Concurrent Bacteremia & HABP/VABP or cSSSI PDUFA	2016
Telavancin	Complete Phase 3 Bacteremia Study	2017

Financial Assets:

Program	Milestone	Target
Closed Triple (FF/UMEC/VI)*	Complete Phase 3 FULFIL Study	2016
Closed Triple (FF/UMEC/VI)*	EU Regulatory Filing	2016
Closed Triple (FF/UMEC/VI)*	Complete Phase 3 IMPACT Study	2017
Closed Triple (FF/UMEC/VI)*	US Regulatory Filing	2018

*Regulatory and clinical milestones as reported by GlaxoSmithKline

Theravance Biopharma Investment Highlights



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About VIBATIV® (telavancin)

VIBATIV was discovered internally in a research program dedicated to finding new antibiotics for serious infections due to *Staphylococcus aureus* and other Gram-positive bacteria, including MRSA. VIBATIV is a bactericidal, once-daily, injectable lipoglycopeptide antibiotic with in vitro potency and a dual mechanism of action whereby telavancin both inhibits bacterial cell wall synthesis and disrupts bacterial cell membrane function.

VIBATIV for injection is approved in the U.S. for the treatment of adult patients for complicated skin & skin structure infections (cSSSI) caused by susceptible isolates of Gram-positive bacteria, including *Staphylococcus aureus*, both methicillin-susceptible (MSSA) and methicillin-resistant (MRSA) strains. In addition, VIBATIV telavancin is approved in the U.S. for the treatment of adult patients with hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP) caused by susceptible isolates of *Staphylococcus aureus* when alternative treatments are not suitable.

VIBATIV is indicated in Canada and Russia for complicated skin & skin structure infections and HAP/VAP caused by Gram-positive bacteria, including MRSA.

VIBATIV is indicated in the European Union for the treatment of adults with nosocomial pneumonia (NP) including ventilator associated pneumonia (VAP), known or suspected to be caused by methicillin resistant *Staphylococcus aureus* (MRSA) and should be used only in situations where it is known or suspected that other alternatives are not suitable.

VIBATIV® (telavancin)

Important Safety Information (US)

Mortality
Patients with pre-existing moderate/severe renal impairment (CrCl ≤50 mL/min) who were treated with VIBATIV® for hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia had increased mortality observed versus vancomycin. Use of VIBATIV in patients with pre-existing moderate/severe renal impairment (CrCl ≤50 mL/min) should be considered only when the anticipated benefit to the patient outweighs the potential risk.

Nephrotoxicity
New onset or worsening renal impairment occurred in patients who received VIBATIV. Renal adverse events were more likely to occur in patients with baseline comorbidities known to predispose patients to kidney dysfunction and in patients who received concomitant medications known to affect kidney function. Monitor renal function in all patients receiving VIBATIV prior to initiation of treatment, during treatment, and at the end of therapy. If renal function decreases, the benefit of continuing VIBATIV versus discontinuing and initiating therapy with an alternative agent should be assessed.

Fetal Risk
Women of childbearing potential should have a serum pregnancy test prior to administration of VIBATIV. Avoid use of VIBATIV during pregnancy unless the potential benefit to the patient outweighs the potential risk to the fetus. Adverse developmental outcomes observed in three animal species at clinically relevant doses raise concerns about potential adverse developmental outcomes in humans. If not already pregnant, women of childbearing potential should use effective contraception during VIBATIV treatment.

Contraindication
Intravenous unfractionated heparin sodium is contraindicated with VIBATIV administration due to artificially prolonged activated partial thromboplastin time (aPTT) test results for up to 18 hours after VIBATIV administration.
VIBATIV is contraindicated in patients with a known hypersensitivity to the drug.

Hypersensitivity Reactions
Serious and potentially fatal hypersensitivity reactions, including anaphylactic reactions, may occur after first or subsequent doses. VIBATIV should be used with caution in patients with known hypersensitivity to vancomycin.

Geriatric Use
Telavancin is substantially excreted by the kidney, and the risk of adverse reactions may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection in this age group.

Infusion Related Reactions
VIBATIV is a lipoglycopeptide antibacterial agent and should be administered over a period of 60 minutes to reduce the risk of infusion-related reactions. Rapid intravenous infusions of the glycopeptide class of antimicrobial agents can cause "Red-man Syndrome" like reactions including: flushing of the upper body, urticaria, pruritus, or rash.

QTc Prolongation
Caution is warranted when prescribing VIBATIV to patients taking drugs known to prolong the QT interval. In a study involving healthy volunteers, VIBATIV prolonged the QTc interval. Use of VIBATIV should be avoided in patients with congenital long QT syndrome, known prolongation of the QTc interval, uncompensated heart failure, or severe left ventricular hypertrophy.

Most Common Adverse Reactions
The most common adverse reactions (greater than or equal to 10% of patients treated with VIBATIV) were diarrhea, taste disturbance, nausea, vomiting, and foamy urine.
Full Prescribing Information, including Boxed Warning and Medication Guide in the U.S., is available at www.VIBATIV.com.

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Back-Up

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VIBATIV® (telavancin)

Why Physicians Choose VIBATIV®

In Vitro Activity

- Dual Mechanism of Action; Bactericidal against clinically important Gram+ organisms
- Active against *S. aureus* strains with reduced susceptibility to other agents
  - VAN MIC ≥ 1 µg/mL
  - VISA, hVISA strains
  - Daptomycin and linezolid-resistant
- No resistance detected in bacterial strains in Phase 2 and 3 cSSSI and HABP/VABP clinical programs; resistance rarely reported during marketed use.

Clinically Relevant

- Penetration into important sites of infection, including the lung
- Drug levels remain above the MIC_{90} for MRSA over 24 hours
- Clinical efficacy shown in largest HABP/VABP studies to date in a broad population of patients with multiple co-morbidities
- Convenience of once daily dosing (with no required therapeutic dose monitoring)
- Safety profile characterized in large clinical studies in both cSSSI and HABP/VABP

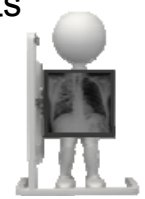
Louis D. Saravolatz, MD, MACP; St. John Hospital, Detroit, MI; Infectious Disease Specialist

Patient Need Driving Utilization

HABP/VABP in institutions with vancomycin MICs≥1µg/mL

HABP/VABP patients with comorbidities

Immunocompromised patients



When a bactericidal agent with good tissue penetration is needed

Patients with persistent or recurrent infection

Requiring >7 days of therapy

OPAT*– given convenience of QD dosing

Taking SSRI's

(*) OPAT is defined as Outpatient Parenteral Antimicrobial Therapy

Telavancin Cure Rates

Phase 3 HABP/VABP Clinical Trial Results

Study Population	ATTAIN 1		ATTAIN 2		COMBINED	
	TLV	VAN	TLV	VAN	TLV	VAN
All-Treated (AT)	57.5% (214/372)	59.1% (221/374)	60.2% (227/377)	60.0% (228/380)	**58.9%** (441/749)	**59.5%** (449/754)
Difference (95% CI)	-1.6% (-8.6%, 5.5%)		0.2% (-6.8%, 7.2%)		-0.7% (-5.6%, 4.3%)	
Clinically Evaluable (CE)	83.7% (118/141)	80.2% (138/172)	81.3% (139/171)	81.2% (138/170)	**82.4%** (257/312)	**80.7%** (276/342)
Difference (95% CI)	3.5% (-5.1%, 12.0%)		0.1% (-8.2%, 8.4%)		1.7% (-4.3%, 7.7%)	

Microbiologically Evaluable (ME)	TLV % Cure	VAN % Cure	% Difference (TLV – VAN; 95% CI)
Single Gram-positive (only)	**84.0** (147/175)	**75.9** (132/174)	**8.1 (-0.2%, 16.5%)**
MRSA (only)	**80.2** (73/91)	**74.1** (86/116)	**6.1 (-5.3%, 17.5%)**
***S. aureus* with VAN MIC ≥ 1 µg/mL**	**85.7** (78/91)	**74.5** (79/106)	**11.2 (0.2%, 22.2%)**

VIBATIV® (telavancin) Prescribing Information. Theravance Biopharma Antibiotics, Inc. March 2014
Data on File. Theravance Biopharma, Inc.

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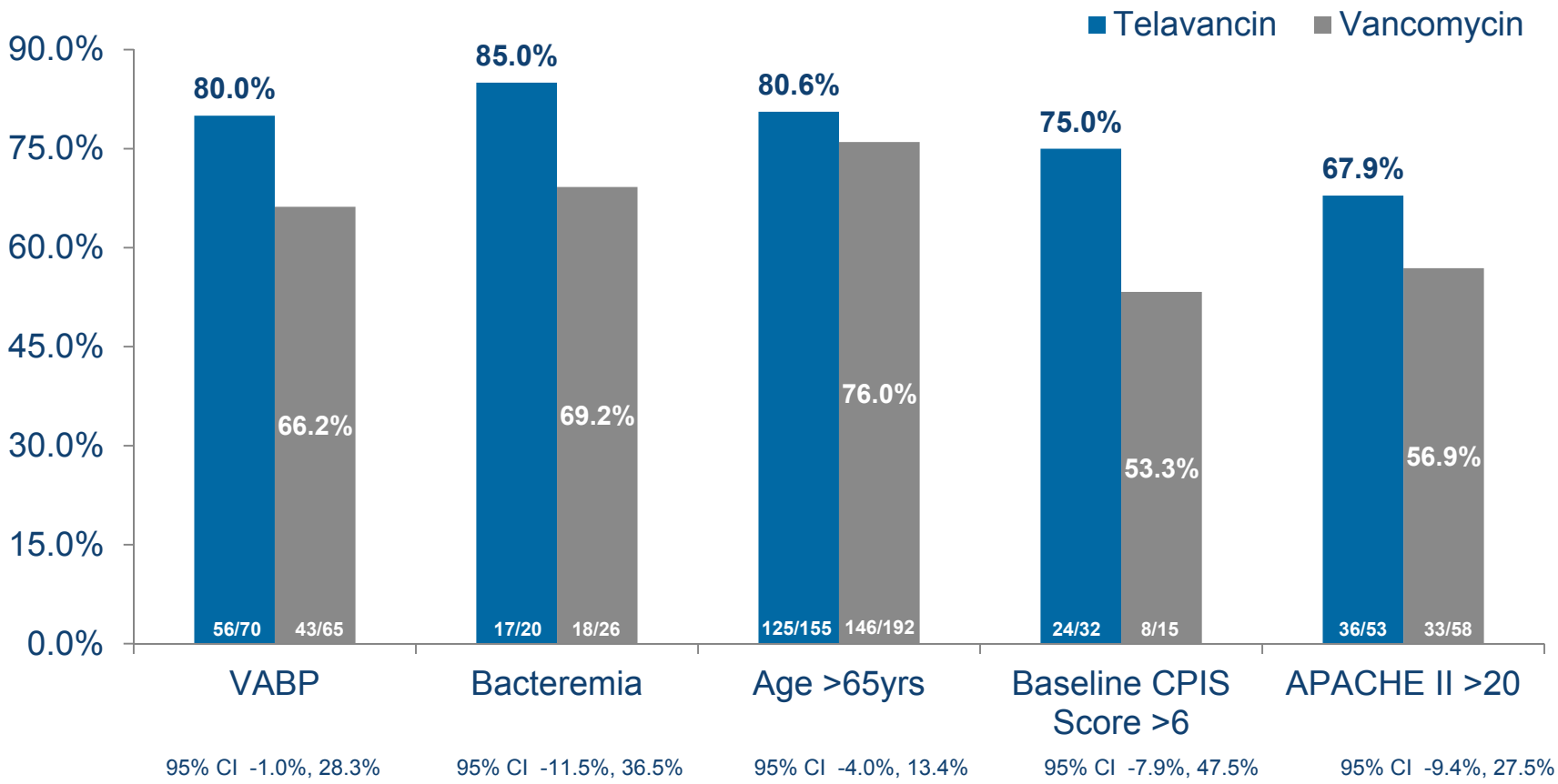
Activity in Clinically Relevant HABP/VABP Subgroups

Pooled Clinical Cure Rates in Phase 3 Trials (CE population)



Rubinstein, Crit Care Conf: 29th Internatl. Symposium on Intensive Care and Emergency Med. 13 (pp S128), 2009; Shorr. ATS 2013 (poster); Stryjewski. Int J Antimicro Agents. 2013 Jul 25. pii: S0924-8579(13).

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VIBATIV®: Potential for **Broadest Set** of Indications Among Branded Anti-MRSA Agents

Compound	Primary Indication		
	SSSI[1]	HABP/VABP	Bacteremia
telavancin	✓	✓	**Registrational Study**
ceftaroline[2]	✓		
dalbavancin	✓		
daptomycin	✓		✓
linezolid	✓	✓	
oritavancin	✓		
tedizolid	✓		

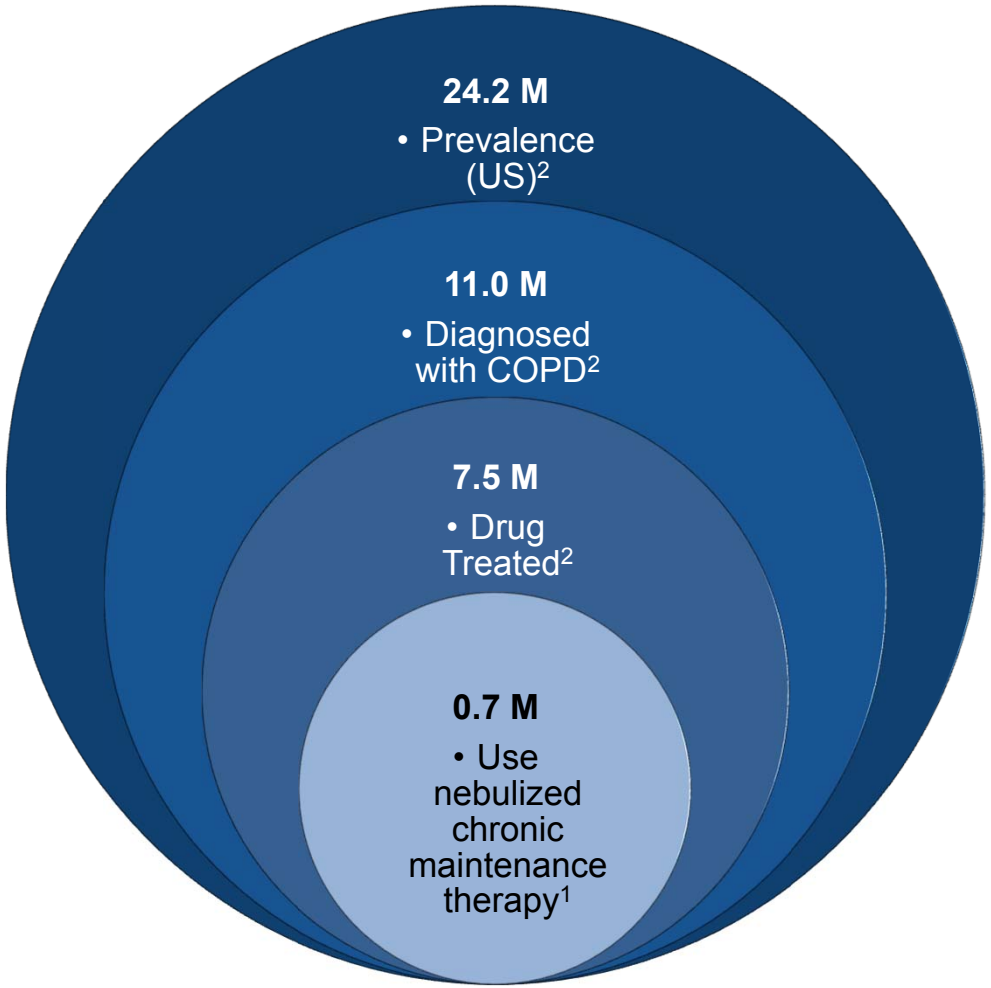
[1]Complicated or Acute Bacterial Skin or Skin Structure Infection
[2]Approved for use in acute bacterial skin and skin structure infections with baseline *S. aureus* bacteremia

Theravance Biopharma

Medicines That Make a Difference®

Revefenacin (TD-4208)

Despite Limited Options, 9% of Treated COPD Patients in the U.S. Use Nebulized Therapy on Enduring Basis[1]



[1]TBPH market research (N = 160 physicians); [2]

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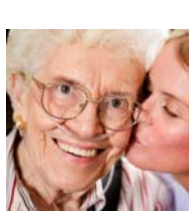
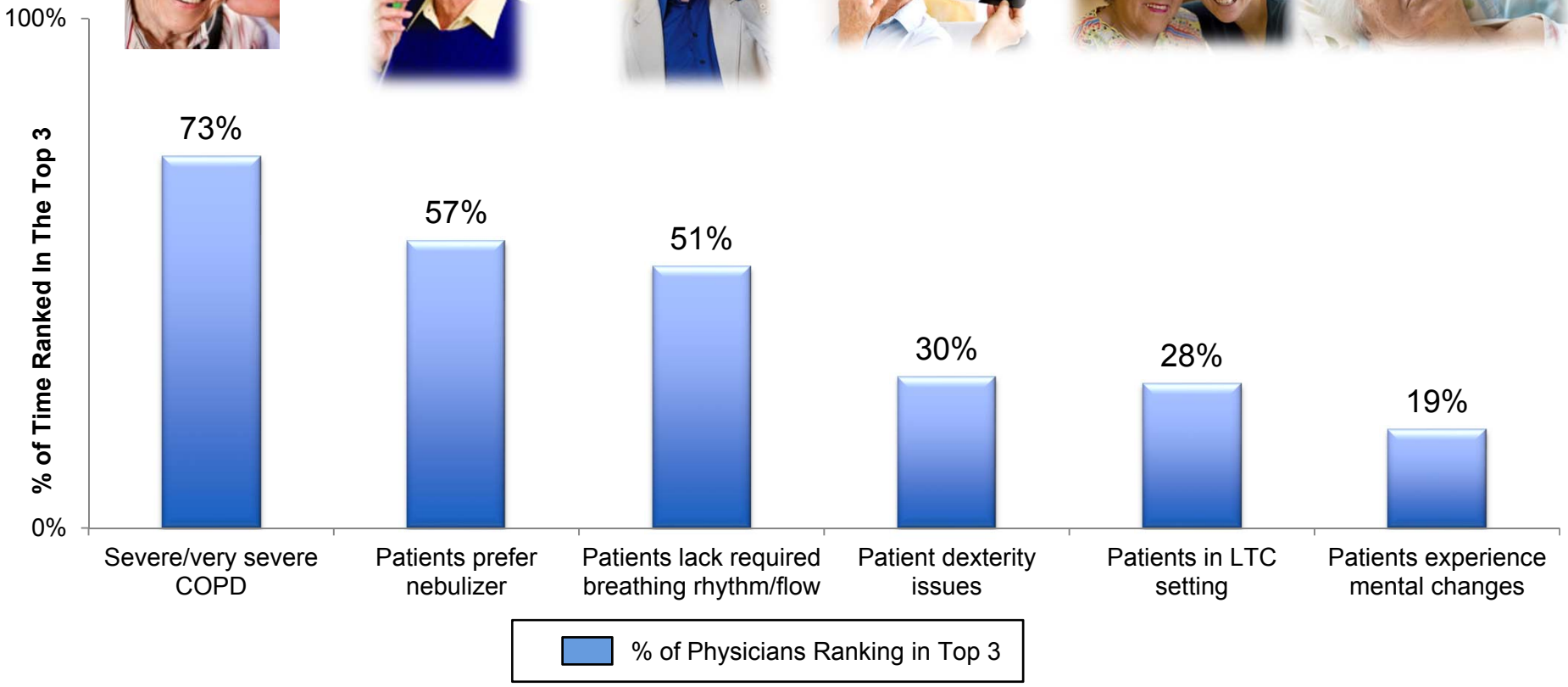
Physicians Readily Identify Patients Appropriate for Nebulizer Therapy





[1]TBPH market research (N = 160 physicians)

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Limited Nebulized Bronchodilators for COPD Available

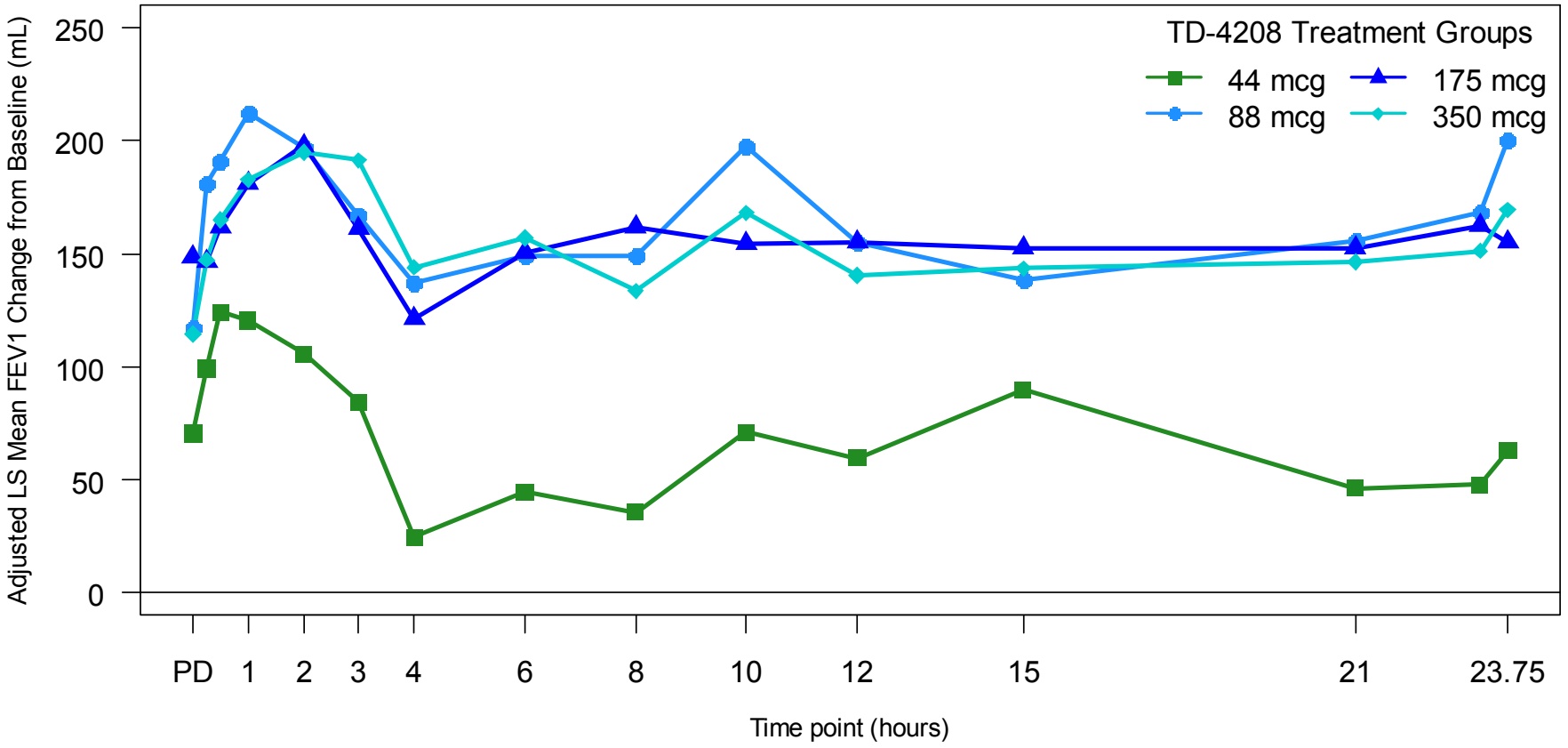
No Nebulized LAMAs and No Once-daily Products of any Class

Frequency	Class	Handheld segment	Nebulized segment
4x daily	SAMA	✓	✓
	SABA	✓	✓
	SAMA/SABA	✓	✓
2x daily	LAMA	✓	
	LABA	✓	✓
1x daily	LAMA	✓	
	LABA	✓	
	LAMA/LABA	✓	

First-in-Class Opportunity
No once-daily marketed nebulized bronchodilators
No once-daily nebulized bronchodilators **in development**
The **only twice-daily LAMA** in development **is restricted** to one nebulizer

Revefenacin (TD-4208) Showed Sustained 24-hour Duration of Action Following Once-daily Dosing

Effects Maintained throughout 4-week Dosing Period



Placebo-adjusted change from baseline in FEV_1 on Day 28

Source: Phase 2 once- versus twice-daily (QD versus BID) study of TD-4208

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Medicines That Make a Difference®

Axelopran

Axelopran Aims to Offer a Differentiated Product

Once-daily Oral PAMORA for Opioid-Induced Constipation

Evolving Treatment Class

- PAMORAs offer **targeted peripheral efficacy** without altering central analgesia
- Regulatory path to approval has been **clarified**
- Recent product approvals will help **build the market**

Patient Need Exists

- Over the counter **laxatives are ineffective** in the majority of patients
- **71%**[1] of OIC patients using common constipation treatments report **failure to achieve relief**

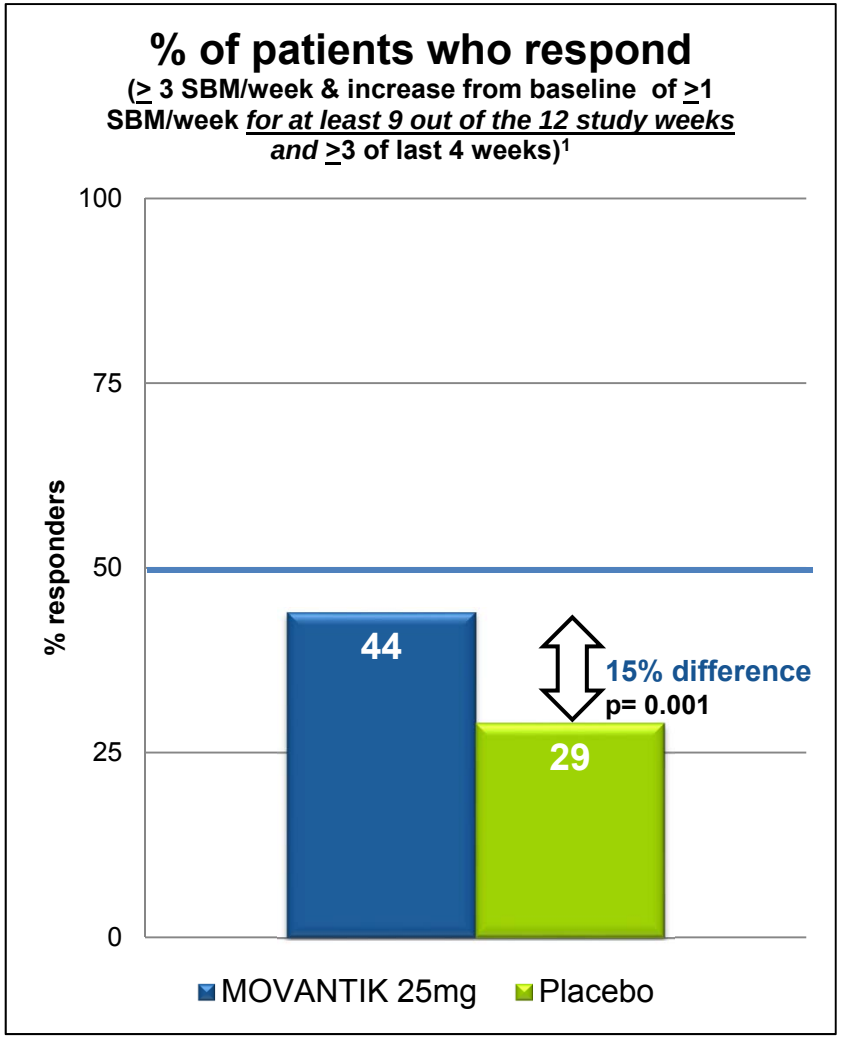
Axelopran Differentiation

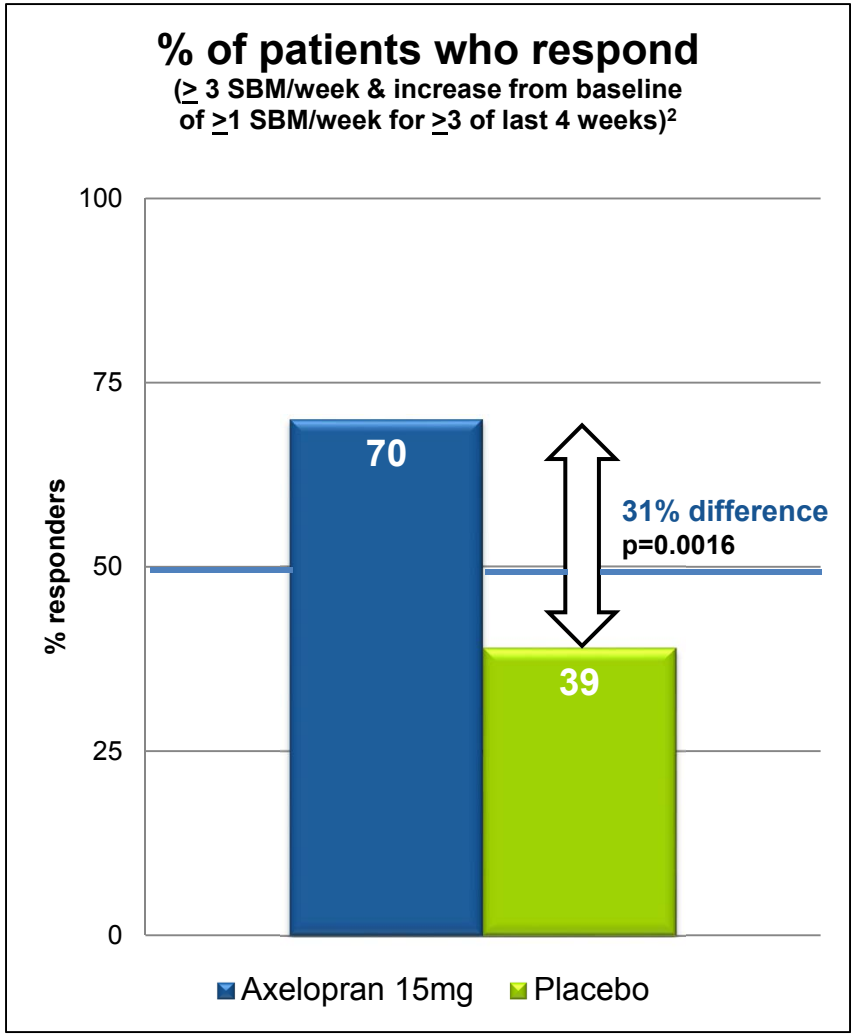
- Axelopran aims to **restore normal bowel function** and **reduce symptoms**
- Encouraging early data for **fixed dose combination**

1. Pappagallo et al. American J of Surgery 182 (Suppl) Nov 2001, 11S-18S

Axelopran Phase 2 Data Shows Potential for Differentiation

Current Benchmark=Improved Spontaneous Bowel Movements (SBM)





1. KODIAK-04 Study
2. Phase 3 axelopran study will include an evaluation comparable to that done for MOVANTIK in Phase 3, including an increase of ≥1 SBM/week for at least 9 out of 12 weeks and >3 of the last 4 weeks of treatment

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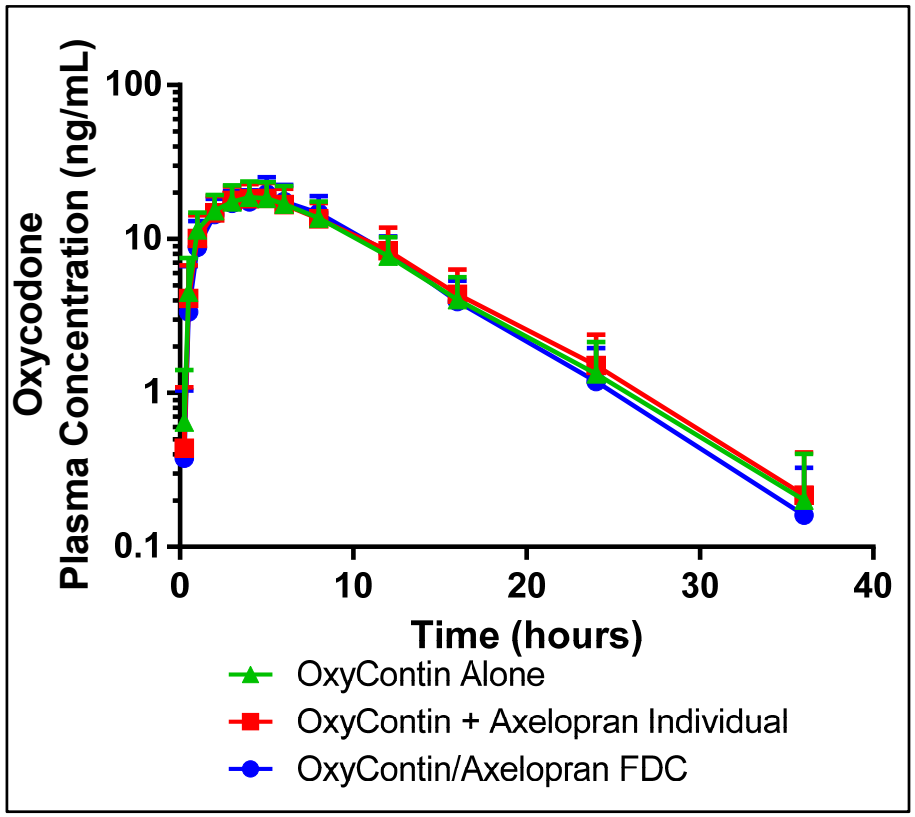
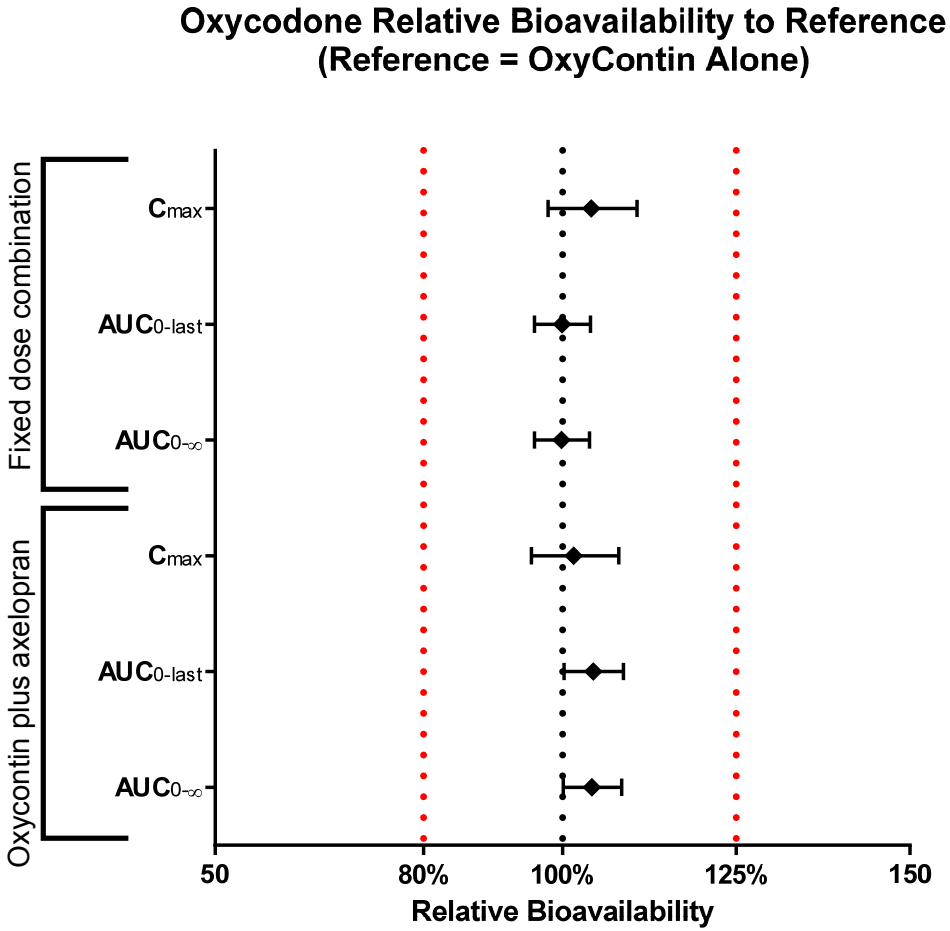
Substantial Commercial Potential for Opioid/ Axelopran Fixed Dose Combinations (FDC)

- FDC offers the opportunity for pain relief without constipation in a **single abuse-deterrant pill**
  - Could represent a **paradigm shift** in opioid treatment
- TBPH has developed a **proprietary spray-coating formulation**
  - Enabled by the **intrinsic properties** of axelopran
  - Technique could be applied to a broad range of abuse resistant opiates
- **First study** of spray-coat application of axelopran to OxyContin®
  - Designed to evaluate effect of axelopran on **oxycodone exposure**

Axelopran Did Not Significantly Alter Systemic Exposure to OxyContin® When Delivered as a FDC Relative vs. Co-Administered as Individual Tablets





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Medicines That Make a Difference®

Closed Triple

Economic Interest in GSK Respiratory Programs

Opportunity for "Triple Therapy"

85% economic interest[1] in future payments made by GSK from certain potential respiratory products:

- "**Closed Triple**" (FF/UMEC/VI): Upward-tiering royalty 6.5% - 10% of annual global net sales
- **MABA Monotherapy** (GSK961081 or '081): 10% to 20% of annual global net sales up to $3.5 billion, and 7.5% for all annual global net sales above $3.5 billion
- **MABA Combination**[2] ('081/FF): 70% of rate applicable to sales of single-agent MABA

No investment required by Theravance Biopharma

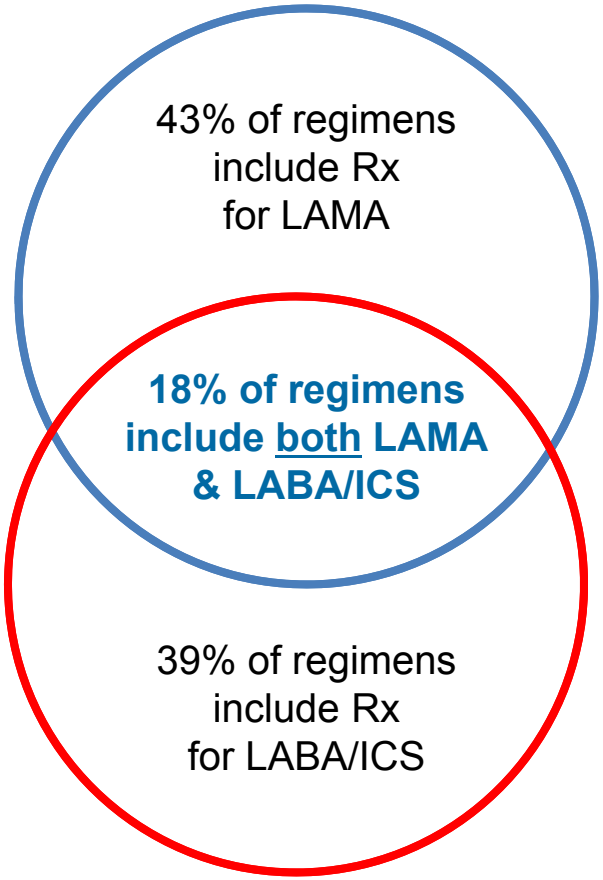
- Programs jointly managed by GSK and Innoviva, Inc.[3]; **fully funded by GSK**
- Phase 3 **IMPACT study** in 10,000 patients underway; **targeted to read-out 2017**[4]
- Phase 3 **FULFIL study** in 1,800 patients enrolling; **targeted to read-out 2016**[4]
- Two positive Phase 3 studies completed in "open" triple therapy

[1]TBPH is entitled to this economic interest through its ownership interest in Theravance Respiratory Company, LLC. [2]If MABA medicine containing '081 commercialized only as a combination, such as '081/FF, the above noted royalty rates apply. [3]Formerly Theravance. Inc. [4]Estimates per Clinicaltrials.gov
FF/UMEC/VI= Fluticasone Furoate/Umeclidinium/Vilanterol. MABA= Inhaled Bifunctional Muscarinic Antagonist -Beta2 Agonist.

Theravance Biopharma

GSK/Innoviva[1] Closed Triple Addresses a Significant, Growing and High Value Patient Segment

- **18%** of prescribed COPD regimens include co-Rx for LAMA+LABA/ICS[1]
- Patients on triple therapy **constitute highest value/greatest need segment**
  - Patients represent >40% of total LAMA and LABA/ICS COPD sales or **$2.1B out of $4.6B total annual US sales** of LAMA and LABA/ICS products for COPD[2,3]
  - Triple patients have more symptoms + higher exacerbation risk. Greater disease burden for patient and healthcare system = greater value for treatment success
- GSK/Innoviva[1] have the **only QD closed triple in late stage** development



[1]Formerly Theravance. Inc.; [2]Encuity Research, LLC., *TreatmentAnswers*™ (2013); [3]EvaluatePharma (2013)