11th Annual Needham Healthcare Conference

Mathai Mammen, M.D., Ph.D.
Senior Vice President, Research and Early Clinical Development

April 4, 2012
Safe Harbor

This presentation contains certain “forward-looking” statements as that term is defined in the Private Securities Litigation Reform Act of 1995 regarding, among other things, statements relating to goals, plans, objectives and future events. Theravance intends such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 21E of the Exchange Act and the Private Securities Litigation Reform Act of 1995. The words “may”, “will”, “should”, “could”, “would”, “plan”, “anticipate”, “believe”, “estimate”, “intend”, “goal,” “project”, “potential”, “expect”, “consistent”, “supportive”, “target” and “promising” and similar expressions are intended to identify such forward-looking statements. Examples of such statements include statements relating to the status and timing of clinical studies, data analysis and communication, statements regarding the potential benefits and mechanisms of action of drug candidates, statements concerning the timing of seeking regulatory approval of our product candidates, statements concerning stockholder approval of GSK’s proposed stock purchase, statements concerning enabling capabilities of Theravance’s approach to drug discovery and its proprietary insights, statements concerning expectations for product candidates through development and commercialization and projections of revenue, expenses and other financial items.

These statements are based on the current estimates and assumptions of the management of Theravance as of the date of this presentation and are subject to risks, uncertainties, changes in circumstances, assumptions and other factors that may cause the actual results of Theravance to be materially different from those reflected in its forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, risks related to delays or difficulties in commencing or completing clinical studies, risks related to the potential that results of clinical or non-clinical studies indicate product candidates are unsafe or ineffective, our dependence on third parties in the conduct of our clinical studies, inability to obtain stockholder approval or satisfy other closing conditions of GSK’s proposed stock purchase, delays or failure to achieve regulatory approvals for product candidates, risks of relying on third-party manufacturers for the supply of our product and product candidates and risks of collaborating with third parties to develop and commercialize products. These and other risks are described in greater detail under the heading "Risk Factors" contained in Theravance’s Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on February 27, 2012 and the risks discussed in our other period filings with SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Theravance assumes no obligation to update its forward-looking statements.
Theravance – Medicines That Make A Difference®

Multivalent Approach 14 years: 1998-present

- Design of small molecules that simultaneously bind two sites
- Insight-driven discovery
  - Target biology
  - Medicinal chemistry
- Enhanced product features
  - Dual Pharmacology
  - High Selectivity
  - Extended Duration
  - Peripheral Restriction
- 20+ development candidates
- 1,100+ issued patents
- Approved medicine
  - VIBATIV® (telavancin) antibiotic
- 3 partnered respiratory programs in late-stage
  - Full development and commercialization funding
- $600M+ received from partnerships

Medicines that make a difference®

VIBATIV® is a registered trademark of Theravance, Inc. For full Prescribing Information and Medication Guide for VIBATIV® in the U.S. please visit www.VIBATIV.com.
Theravance – Advancing Key Programs

**RELOVAIR™**
- In collaboration with GlaxoSmithKline
- Targeted to be a once-daily combination LABA+ICS
- Reported initial outcomes from pivotal Phase 3 studies in COPD and asthma
  - GSK intends to commence global regulatory filings in COPD and asthma from mid-2012

**LAMA/LABA**
- In collaboration with GlaxoSmithKline
- Targeted to be a once-daily dual bronchodilator, LAMA + LABA
- Phase 3a development program for GSK573719/vilanterol expected to complete in 2012

**MABA**
- In collaboration with GlaxoSmithKline
- Muscarinic antagonist/β2-agonist in a single molecule
- Positive topline results from a Phase 2b COPD study of GSK961081

**PµMA**
- Targeted to be a once-daily, orally-administered therapy for OIC
- TD-1211 achieved positive Phase 2 Proof-of-Concept
- Phase 2b program in opioid-induced constipation initiated in July 2011

**Diverse Product Pipeline**
- Approved medicine – VIBATIV® (telavancin) antibiotic
- Targeting “best-in-class” medicines in respiratory, bacterial infections, pain, gastrointestinal motility dysfunction, cognitive disorders & attention deficit hyperactivity disorder
### THERAPEUTIC AREA DEVELOPMENT STATUS

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<tr>
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**Demonstrated Proof-of-Concept**

**Pre-Proof-of-Concept**

RELOVAIR™ is a trademark of the GlaxoSmithKline group of companies.
### Significant Respiratory Market Opportunity

#### Significant Revenue Growth Recently

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<th>Sep-10</th>
<th>Sep-11</th>
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<td>Products Containing Long-Acting Beta Agonists</td>
<td>$14.8</td>
<td>$15.3</td>
<td>$17.4</td>
<td>$18.9</td>
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<td>Tiotropium</td>
<td>$11.7</td>
<td>$12.0</td>
<td>$13.4</td>
<td>$14.4</td>
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#### Forecast Patient Growth Driven by COPD

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<th>2010</th>
<th>2019</th>
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<td>Chronic Obstructive Pulmonary Disease</td>
<td>18.5</td>
<td>24.1</td>
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<tr>
<td>Asthma</td>
<td>31.1</td>
<td>32.4</td>
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</table>

### CAGR 2008 – 2011 Revenue

- Long-Acting Bronchodilators: 8.7%

### CAGR 2010 – 2019 Drug-Treated Patients

- COPD: 3.0%
- Asthma: 0.5%

**Sources:** IMS Health and ©Chronic Obstructive Pulmonary Disease (Event Driven), December 2011 and ©Asthma (Event Driven), September 2010

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RELOVAIR™ (FF/VI) with GSK
Goal: Once-Daily Treatment for COPD and Asthma

- Combination ICS/LABA product
  - Global COPD and asthma market at ~ $12.6B*
  - COPD driving category growth
- Phase 3 data support submissions for once-daily treatment RELOVAIR™ (fluticasone furoate “FF” /vilanterol “VI”) (ICS/LABA) in COPD and asthma
- GSK intends to commence global regulatory filings in COPD and asthma
  - COPD
    - GSK intends to submit regulatory applications RELOVAIR™ 100/25mcg in the US and Europe from mid-2012
  - Asthma
    - GSK plans to submit an application in Europe from mid-2012
    - Continue discussions with FDA on regulatory requirements
- Theravance has no cost obligation through NDA/MAA

*Source: IMS MIDAS Global Sales, MAT 03/2011
RELOVAIR™ with GSK – Phase 3a in COPD
Two Replicate 52-week Pivotal Exacerbation Studies

Objective: To assess the efficacy and safety of three doses of RELOVAIR™ in ~ 1,620 patients with COPD in each of the studies

- RELOVAIR™ (FF/VI 50/25mcg, 100/25mcg, 200/25mcg) vs. VI 25mcg
- Studies were powered to compare each of the three doses of FF/VI to VI alone in a step-wise manner, starting at the highest dose

Efficacy:
- Primary Endpoint – Annual rate of moderate and severe exacerbations

<table>
<thead>
<tr>
<th>Dose</th>
<th>Study 1</th>
<th>Study 2</th>
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<tr>
<td>200/25mcg</td>
<td>p&lt;0.001</td>
<td>p=0.109</td>
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<tr>
<td>100/25mcg</td>
<td>p=0.024</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>50mcg/25mcg</td>
<td>p=0.040</td>
<td>p=0.181</td>
</tr>
</tbody>
</table>

- In both studies, all doses of FF/VI demonstrated reductions in the annual rate of moderate to severe exacerbations compared to VI alone
- In the first study, the reductions were statistically significant at all doses
- In the second study, the reductions were not statistically significant at the highest dose 200/25mcg

- In both studies, all doses of FF/VI demonstrated numerical increases in lung function vs. VI, but not all increases were significant

Safety:
- In both studies, common adverse events in FF/VI included nasopharyngitis, upper respiratory tract infection, oral candidiasis, headache, COPD, back pain, pneumonia, bronchitis and sinusitis
- Pneumonia rates – 3% for VI, 5% to 7% for RELOVAIR™: GSK is investigating reports of fatal pneumonia on FF/VI, primarily at the 200/25mcg dose
- Integrated safety and tolerability analysis is underway

GSK intends to submit regulatory applications in the US and Europe from mid-2012

RELOVAIR™ is a trademark of the GlaxoSmithKline group of companies.
RELOVAIR™ with GSK – Phase 3a in Asthma Exacerbation Pivotal Study

Asthma Exacerbation Study, ~2,000 patients

Objective
- To evaluate the efficacy and safety of RELOVAIR™ (FF 100/25mcg) vs. FF 100 mcg

Efficacy
- Primary Endpoint
  - FF/VI significantly increased time to first exacerbation (p=0.036)
- Secondary Endpoints
  - FF/VI significantly decreased annual rate of severe exacerbations (p=0.014)
  - FF/VI improved trough FEV1 at all pre-defined time points over the 76-week treatment period (p<0.001 vs. FF), demonstrating a contribution by VI to the improvement in lung function of FF/VI

Adverse Events (AEs)
- Frequent AEs: headache, nasopharyngitis, upper respiratory tract infection, bronchitis, cough, oropharyngeal pain and influenza
- No differences in the number of asthma-related hospitalizations between treatment arms
- No asthma-related deaths
- Integrated safety and tolerability analysis is underway

GSK intends to submit regulatory application in Europe from mid-2012 and will continue discussions with the FDA
RELOVAIR™ with GSK – Phase 3a in COPD
Successful Completion of Two 6-month Efficacy and Safety Studies

**Study Design:** Randomized, placebo-controlled, double-blind, parallel-group studies in ~2,200 patients with moderate to severe COPD

- Doses (n=~200 per arm): FF (100mcg, 200mcg), VI (25mcg), RELOVAIR™ (50mcg, 100mcg, 200mcg FF plus 25mcg VI) or Placebo

**Efficacy:** Pre-specified co-primary endpoints analyses

- Both studies showed statistically significant improvements on:
  - 0-4 hour weighted mean FEV1 and trough FEV1
    - RELOVAIR™ vs. Placebo
    - Vilanterol vs. Placebo
  - Weighted mean FEV1
    - RELOVAIR™ vs. Fluticasone Furoate
  - Numerical improvements, but not consistent statistical significance on:
    - Trough FEV1
      - RELOVAIR™ vs. Vilanterol

**Safety:**

- Common adverse events in both studies across all treatment arms, including placebo
  - Nasopharyngitis
  - Upper respiratory tract infection
  - Headache

- No clinically relevant effects seen in laboratory measures or vital sign

GSK intends to submit regulatory applications in the US and Europe from mid-2012

RELOVAIR™ is a trademark of the GlaxoSmithKline group of companies.
LAMA/LABA Advanced to Phase 3a
Once-daily Dual Bronchodilator for COPD

är GSK573719/vilanterol (‘719/VI) – combines two bronchodilators, ‘719, a long-acting muscarinic antagonist, and ‘444, a long-acting beta agonist

är Phase 3a program consists of 7 studies with over 5,000 patients globally using a dry powder inhaler

är Theravance has no cost obligation through NDA/MAA
LAMA/LABA Phase 3a Program

Summary

Phase 3a program consists of seven studies with over 5,000 patients globally using a dry powder inhaler evaluating two doses of ‘719 (62.5mcg and 125mcg) and ‘719/VI (62.5/25mcg and 125/25mcg)

- 12-month safety study, N=500, (‘719 125mcg and ‘719/VI 125/25mcg)
- Two 6-month pivotal placebo vs. component efficacy studies, N=1,450/study
- Two 6-month active comparator efficacy studies, N=832/study
- Two replicate 12-week crossover exercise studies, N=312/study
MABA (GSK961081) Program

Muscarinic antagonist and β₂-agonist in a single molecule

- Potential for monotherapy and triple mechanism in a single inhaler when combined with an inhaled corticosteroid (ICS) for the treatment of COPD

- Discovered through Theravance’s insights on secondary binding sites on both the β₂ and muscarinic receptors

- Theravance has no cost obligation on the program

- All doses of GSK961081 (‘081) achieved primary endpoint in Phase 2b study in COPD

- Evaluating ‘081 initially as BID fixed-dose combination with fluticasone propionate (FP) outside the US
  - Efficient pathway to market
  - In the US, further discussion with FDA is required

- QD/BID and Phase 3 timing dependent upon successful completion of Phase 3 enabling studies
‘081 Phase 2b 28-Day COPD Dose-Ranging Study
Achieved Primary Endpoint: Trough Bronchodilation on Day 29

All doses of ‘081 achieved primary endpoint
‘081 was generally well-tolerated
Potential Economics for Theravance
Respiratory Programs with GSK

◅LABA Collaboration

◅ RELOVAIR™
◅ Theravance has no cost obligation through NDA/MAA
◅ Theravance would receive royalties of 15% on first $3B of annual net sales and 5% thereafter for approved LABA and LABA+ICS

◅ LAMA/LABA
◅ Theravance has no cost obligation through NDA/MAA
◅ Theravance would receive upward tiering royalties mid-single digits to 10%

◅ Strategic Alliance

◅ MABA (GSK961081)
◅ Theravance has no cost obligation on the program
◅ Potential milestone payments to Theravance
◅ $10 million for successful Phase 2 combination program
◅ $25 million/program for initiation of single and combination Phase 3 programs
◅ Single-agent royalties of 10% to 20% of net sales up to $3.5 billion and 7.5% thereafter

RELOVAIR™ is a trademark of the GlaxoSmithKline group of companies.
TD-1211 for OIC
Goal: Once-Daily, Orally-Administered PµMA

- Targeted to be a best-in-class, once-a-day, orally-administered, peripherally selective, multivalent antagonist of the mu opioid receptor (PµMA), for the treatment of opioid-induced constipation (OIC)
  - Theravance-discovered novel, multivalent compound designed to alleviate gastrointestinal side effects of opioid therapy without affecting analgesia

- Potential OIC Market Opportunity in U.S. could be >500M treatment days (TD) annually*
  - 3.9B TD on non-injectable opioids*
  - ~40% of patients on chronic opioids have constipation*
  - 45% of OIC patients using laxatives still report <3 BM per week*

- TD-1211 achieved positive Phase 2 Proof-of-Concept

TD-1211 for OIC
Ongoing Phase 2b Program

Goal: To assess the safety, tolerability and clinical activity of TD-1211 in patients with OIC
- Consists of three dose-ranging studies, ~350 patients
- Evaluate doses and dose regimens to provide information for the design of the Phase 3 program

Enrollment is progressing well in the Phase 2b program

Phase 2b data expected to be reported mid-2012

PµMA Program Objective:
Restore normal bowel function/Good tolerability
Theravance’s HCV Program
Viral NS5A Protein Inhibitor (VIPER)

1st generation NS5A inhibitors:
- QD
- Picomolar potency
- Safe
- Well-tolerated
- Few DDIs

... but GT-1a efficacy limited by highly-resistant mutants

2nd generation NS5A inhibitors without these liabilities could unlock the full potential of the class

Goal of Theravance Program
Theravance’s HCV Program – TD-2872

Goal – Improved GT-1a Activity, Enhanced Clinical Benefit

Demonstrated Preclinical Profile

- Strong activity vs. previously described, highly-fit GT-1a NS5A resistance mutants
- High barrier to resistance (including new mutations) in colony formation assay

Target Clinical Profile

- Enhanced viral load reduction
- In combination therapy, reduced likelihood of the failure associated with NS5A resistance
Theravance’s HCV Program – TD-2872
Attractive DAA Partner for Combo Regimen Opportunities

- TD-2872 + Nuc +/- RBV = Potential nuc-containing regimen
- TD-2872 + QD PI +/- RBV = Potential nuc-sparing regimen; likely best pairing for PI in absence of nuc

- Initiated IND-enabling studies on TD-2872 in March 2012
- Multiple candidates moving through advanced preclinical profiling
Multivalent approach provides heterodimeric NS5A inhibitors with a higher genetic barrier to resistance at genotype 1a compared to BMS-790052.
GT-1a Assessment of Theravance Advanced Candidates

Heterodimers also demonstrated improved replicon activity against resistant genotype 1a mutants compared to BMS-790052

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<tr>
<th>Replicon Potency Against Genotype 1a Resistant Mutations EC50 (nM)</th>
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<tr>
<td>Wild Type</td>
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Financial Position

Cash as of December 31, 2011: ~$241M

Projected 2012 expenses

- Approximately $120M to $130M for R&D + G&A
  - 1Q 12 expenses will be slightly higher than 4Q11 expenses due to ongoing Phase 2 studies of PµMA (TD-1211) and MARIN (TD-9855)
  - Excludes SFAS 123(R) stock option expenses

Access to development funding

- GSK pays all RELOVAIR™, LAMA/LABA and MABA program development costs
- Potential MABA milestone payments from GSK

GSK to increase its ownership in Theravance through private placement
Stock purchase subject to approval at Theravance Annual Meeting
### RELOVAIR™ & Diverse Pipeline: Building Long-Term Value

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THANK YOU