

THE SCIENCE *of* POSSIBILITY



**Second Quarter 2016
Financial Results**

July 27, 2016

Agenda



Introduction

Michael Partridge, VP Investor Relations

CF Strategy Update

Jeff Leiden, M.D., Ph.D., Chairman and CEO

Second Quarter 2016 Financial Results

Ian Smith, Chief Financial Officer

Q&A

Safe Harbor Statement



This presentation contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, including, without limitation, information pertaining to KALYDECO[®] and ORKAMBI[®], the ongoing discovery, development and commercialization of Vertex's product candidates and the Company's future financial performance. While the Company believes that these forward-looking statements are accurate, these statements are subject to risks and uncertainties that could cause actual outcomes to differ materially from the Company's current expectations. These risks and uncertainties include, among others, the risk that data from the Company's development programs may not support registration or further development of its compounds due to safety, efficacy or other reasons, and the risks and uncertainties listed in the Company's July 27, 2016 press release and under Risk Factors in the Company's 10-K and other filings with the SEC.

Non-GAAP Financial Measures



In this presentation, Vertex's financial results and financial guidance are provided in accordance with accounting principles generally accepted in the United States (GAAP) and using certain non-GAAP financial measures. In particular, non-GAAP financial results and guidance exclude stock-based compensation expense, revenues and expenses related to consolidated variable interest entities, costs and credits related to the relocation of the company's corporate headquarters and hepatitis C-related revenues and costs and other adjustments. These results are provided as a complement to results provided in accordance with GAAP because management believes these non-GAAP financial measures help indicate underlying trends in the company's business, are important in comparing current results with prior period results and provide additional information regarding the company's financial position. Management also uses these non-GAAP financial measures to establish budgets and operational goals that are communicated internally and externally and to manage the company's business and to evaluate its performance. The company adjusts, where appropriate, for both revenues and expenses in order to reflect the company's operations. The company provides guidance regarding product revenues in accordance with GAAP and provides guidance regarding combined non-GAAP research and development and sales, general, and administrative expenses. The company does not provide guidance regarding GAAP research and development and sales, general, and administrative expenses because of the difficulty of estimating stock-based compensation expenses, and predicting whether or not there will be additional expense items for which adjustments are appropriate. A reconciliation of the GAAP financial results to non-GAAP financial results is included in the company's press release dated July 27, 2016.

27,000 Patients Currently Eligible for KALYDECO or ORKAMBI



kalydeco
(ivacaftor) tablets 150 mg
oral granules 50•75 mg



- First approved in 2012 for patients 6+ who have at least one copy of the G551D mutation
- ~4,000 now eligible for treatment

ORKAMBI[®]
(lumacaftor/ivacaftor)
200 mg / 125 mg tablets



- Approved in 2015 for patients 12+ who have two copies of the F508del mutation
- ~23,000 now eligible for treatment

***~9,000 of the 27,000 eligible patients are currently being treated with
KALYDECO or ORKAMBI***

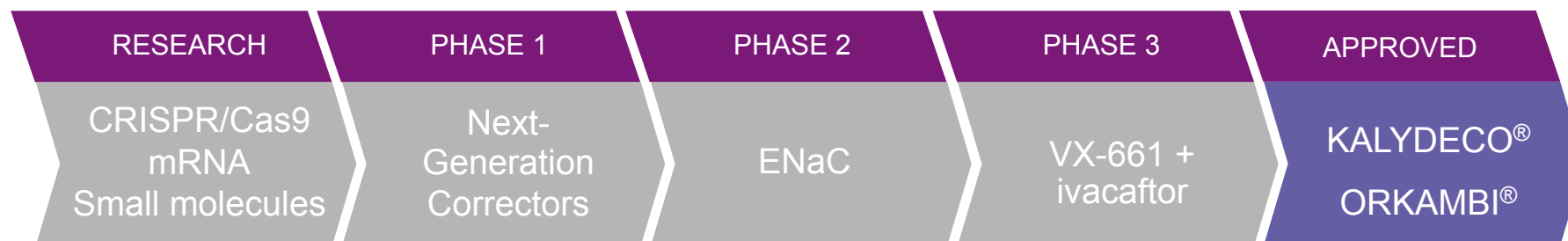
Vertex CF Opportunity

Goal of Treating All People with CF



27,000 Patients Currently Eligible for Treatment	27,000 → 44,000 Label Expansions	44,000 → 68,000 Triple Combination Regimens	68,000 → 75,000 Other Approaches
~9,000 Currently Being Treated with KALYDECO or ORKAMBI	Potential to Treat 17,000 Additional Patients:	Potential to Treat 24,000 Additional Patients:	Potential to Treat All People with CF
 	12,000 Patients: <Age 12 F508del/F508del  5,000 Patients Primarily Residual Function Mutations 	F508del/Minimal CFTR Function Next-Generation Corrector + VX-661 + Ivacaftor	Gene Editing (CRISPR-Cas9), ENaC Inhibition, mRNA and Potentially Other Approaches ©2016 Vertex Pharmaceuticals Incorporated

Expanding Eligible Patient Populations with ORKAMBI and KALYDECO



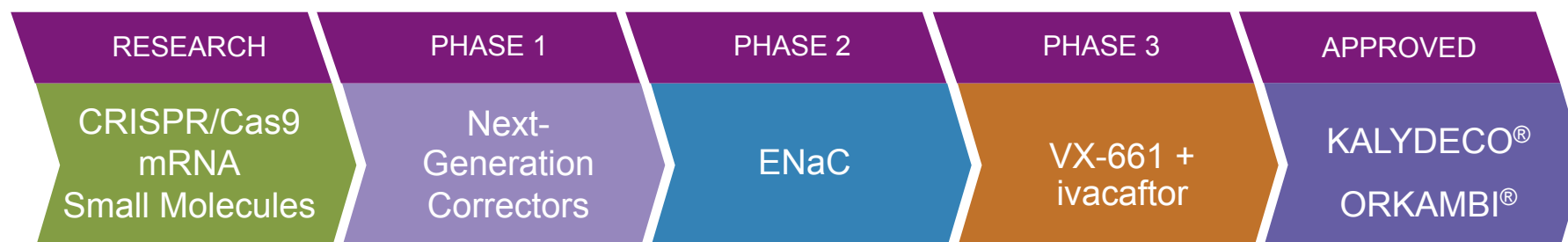
- **Potential to treat children <12 years of age: ~12,000 patients**
 - sNDA for treatment in ages 6-11 accepted for Priority Review in the U.S.; PDUFA date of 9/30/16
 - Phase 3 efficacy and safety study ongoing (fully enrolled) in Europe to support potential MAA approval in ages 6-11



- **Potential to treat residual function mutations (all ages) and children <2 years of age: ~5,000 patients**

~17,000 additional patients could become eligible for treatment with ORKAMBI or KALYDECO based on potential label expansions

Vertex CF Pipeline



RESEARCH

CRISPR/Cas9

- Gene editing research collaboration with initial focus in CF and Sickle Cell Disease/Hemoglobinopathy

mRNA

- Research collaboration and licensing agreement to develop mRNA Therapeutics™ for the treatment of CF

Small Molecules

- Additional next-gen correctors potentially increasing benefit

PHASE 1

- Phase 1 underway with Next-Gen correctors VX-152 and VX-440
- Phase 2 clinical development in patients planned to begin 2H16

PHASE 2

- Initiated Phase 2 combination study with ORKAMBI in 1Q 2016
- Phase 2 monotherapy study completed in April 2016
- Potential complementary mechanism for current and future CF treatments

PHASE 3

- Ongoing broad Phase 3 program
- Potential opportunity to provide improved benefit-risk profile v. ORKAMBI and enhanced clinical benefit over KALYDECO
- Key role in development of triple combination regimen

APPROVED

- Approximately 27,000 patients eligible for treatment with ORKAMBI or KALYDECO in U.S., E.U., Canada and Australia

Vertex/Moderna Collaboration Enhances Our Leadership in CF

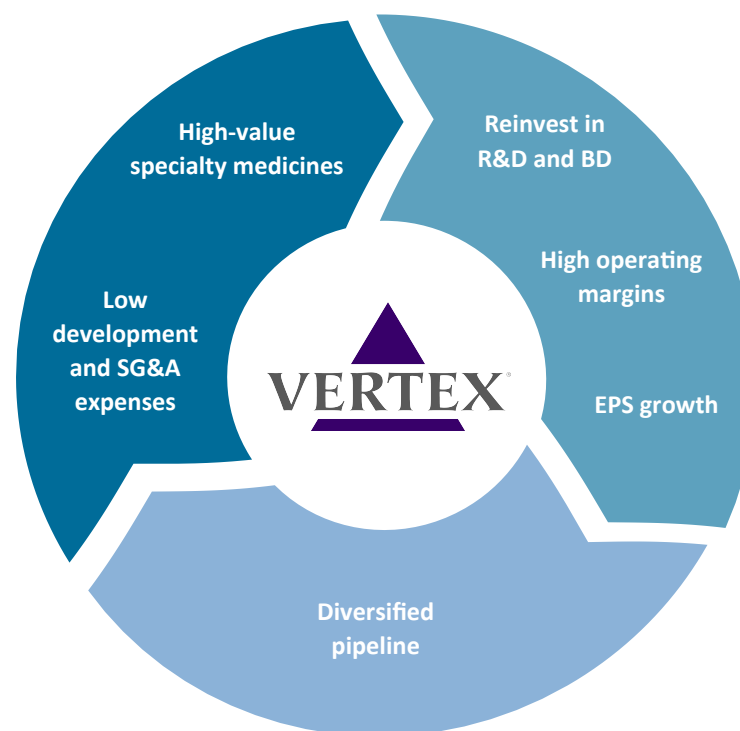
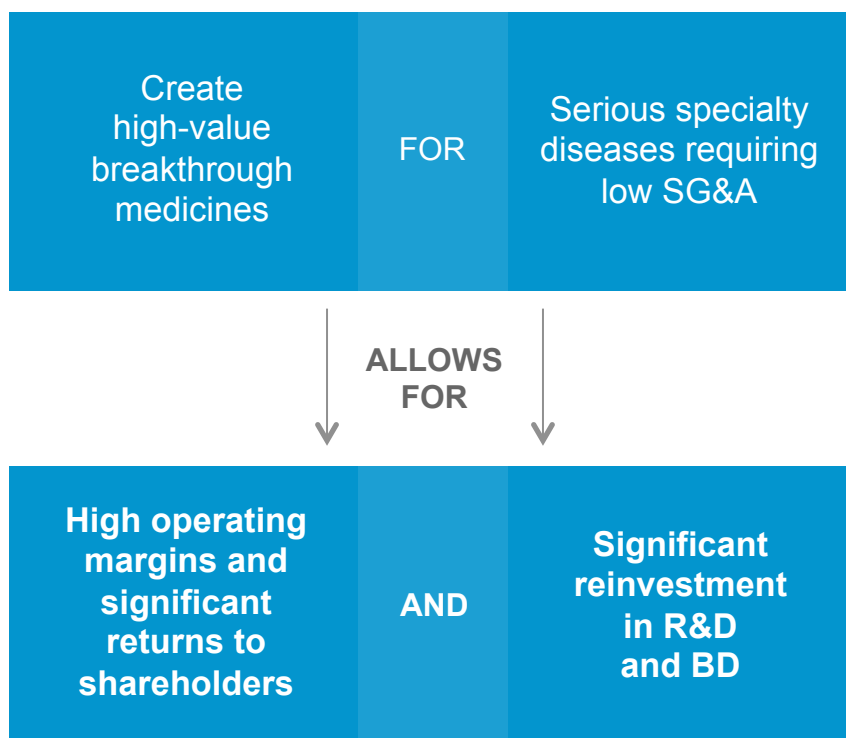


SIGNED JULY 2016

- Moderna is pioneering the discovery and development of a new class of medicines composed of messenger RNA (mRNA).
- Moderna's mRNA Therapeutics™ are designed to train the body's cells to produce a specific protein of interest
- The goal of the collaboration is to **combine Moderna expertise in mRNA and Vertex leadership in CF to create novel medicines that increase CFTR protein expression** and address the underlying cause of the disease
- **Terms:** Total upfront payment of \$40M which included \$20M in cash and a \$20M investment made in the form of a convertible note
 - 3 year research collaboration
 - Vertex will fund 100% of research, development and commercialization, and pay up to \$275M in one-time milestones, including \$220M in approval and reimbursement milestones
 - Vertex will pay royalties on net sales of resulting medicines



The Unique Vertex Business Model



Today: ORKAMBI and KALYDECO



- Q2'16 net revenues of \$245M, including:
 - \$229M in U.S.
 - \$16M ex-U.S. (mainly Germany)
- ~ 6,000 patients have started treatment in the U.S. as of June 30, 2016
- In Europe, commercially available in Germany. Also available through early access programs in France
- Reiterate 2016 ORKAMBI guidance of \$1.0 to \$1.1B



- Q2'16 global net revenues of \$180M, including:
 - \$103M in U.S.
 - \$77M ex-U.S.
- Reiterate 2016 KALYDECO guidance of \$685 - \$705M

Second Quarter 2016 Financial Highlights



<i>(in \$M except per share data)</i>	2Q'16	2Q'15
ORKAMBI Revenues	245	--
KALYDECO Revenues	180	155
Total CF Revenues	426	155
Non-GAAP Operating Expense*	306	254
Non-GAAP R&D Expense*	218	182
Non-GAAP SG&A Expense*	89	72
Non-GAAP Net Income (Loss)*	58	(131)
Non-GAAP Net Income (Loss) Per Share*	0.24	(0.54)

*Cash Balance at June 30, 2016**

1.07B

*An explanation of the company's non-GAAP financial measures and a full reconciliation of GAAP to non-GAAP financial results is included in the company's press release dated July 27, 2016.

* Cash includes cash, cash equivalents and marketable securities. As of June 30, 2016 the company had \$300M of term debt.

*The company's GAAP net loss was \$65M and \$189M, respectively, GAAP R&D expense was \$271M and \$224M, respectively, and GAAP SG&A expense was \$112M and \$94M, respectively, in 2Q'16 and 2Q'15.

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Vertex CF Opportunity

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Thank you