

CUMBERLAND[®]
PHARMACEUTICALS

Investor Presentation

Safe Harbor Statement

This presentation contains forward-looking statements concerning our approved products and product development, our technology, our competitors, our intellectual property, our financial condition and our plans for research and development programs that involve risks, uncertainties and assumptions. These statements are based on the current estimates and assumptions of the management of Cumberland Pharmaceuticals as of the date of this presentation and are subject to uncertainty and changes in circumstances. Given these uncertainties, you should not place undue reliance upon these forward-looking statements. Such forward-looking statements are subject to risks, uncertainties, assumptions and other factors that may cause the actual results of Cumberland Pharmaceuticals to be materially different from those reflected in such forward-looking statements.

Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, those set forth under the headings "Risk factors" and "Management's discussion and analysis of financial condition and results of operations" in our Form 10-K and Form 10-Q Reports on file with the SEC. The Company does not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. All statements contained in this presentation are made only as of the date of this presentation. For more information on our brands, including full prescribing and safety information, please see the links to the product websites which can be found at www.cumberlandpharma.com.



Company Overview

- **Specialty pharmaceutical company**
 - Portfolio of **seven** FDA approved products
 - Promoted by **two** national sales forces
- Several **near-term catalysts** for new growth opportunities
- **Four Phase II products** in development with upcoming study milestones
- Proven record of **successful** product development and product acquisition
- **Strong financial position** and positive net cash flows from operations



Marketed Brands



HOSPITAL

Acetadote®
(Acetaminophen Toxicity)

Caldolor®
(Pain and Fever)

Vaprisol®
(Hyponatremia)



GASTROENTEROLOGY

Kristalose®
(Acute/Chronic Constipation)

Omeclamox®-Pak
(*H. pylori*)



ONCOLOGY

Ethyol®
(Amifostine)

Totect®
(Dexrazoxane)



IV ACETADOTE®

- IV treatment for **acetaminophen overdose**
- Developed and registered by **Cumberland**
- Acetaminophen is the **leading cause of poisoning in the U.S.***
- Acetadote now **standard of care**
- Cumberland offers both Brand and Authorized Generic
- Favorable court rulings upholding patents
- Maintaining **significant market share**



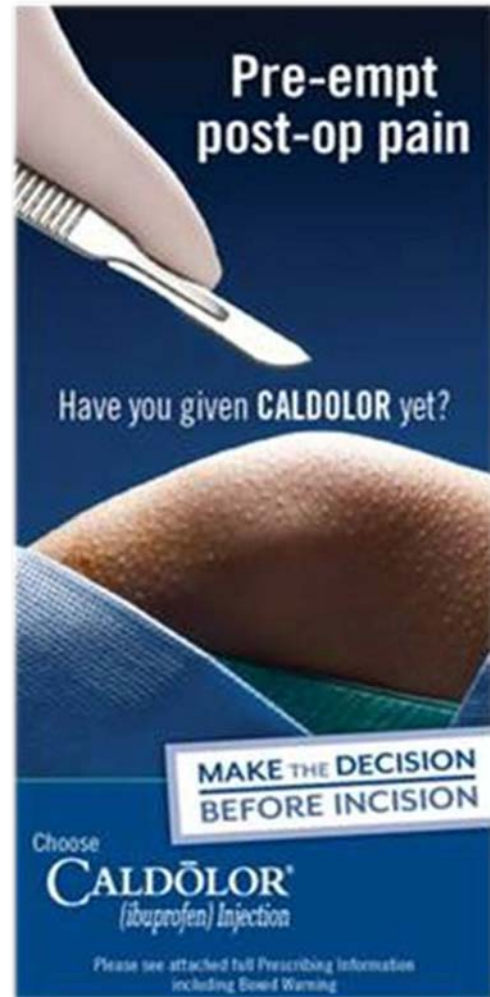
**National Poison Data System, American Association of Poison Centers*



CALDOLOR[®]

- Patented, **injectable formulation of ibuprofen**
- Developed and registered by **Cumberland**
- **First injectable** approved in the US for pain & fever
- Unresolved pain remains **leading cause for hospital readmissions**, with a total **market potential of over 700M units***
- Significant data supports pre-op management of inflammation
- **Pediatric labeling** approved by FDA and launched

**Symphony Source Health*



- **Unique** crystalline formulation of lactulose
- Prescription strength laxative
- **Clinically proven** increases in patient satisfaction
- Acquired from Mylan Laboratories
- Repositioned to reflect **branded status**
- New pricing allowed co-pay support
- Expanding **Managed Care coverage**





- Re-launch of an FDA-approved **oncology hospital brand**
- **Protects against** the harmful effects of cancer treatments
- **Protects the patient's healthy tissue, not the tumor**
- Indicated for use with **head & neck and ovarian cancers**
- Potential to become Cumberland's **largest selling brand**



Portfolio Expansion Strategy



IDENTIFY

Late Stage Candidates



ACQUIRE

*Under-Promoted,
Approved Brands*



EXPAND

Existing Products



DEVELOP

Early-Stage Candidates

PRODUCT
PORTFOLIO



Acquisition Initiative



GOAL TO ADD ONE NEW PRODUCT PER YEAR

through business development initiative or internal product development



Active, ongoing initiative to identify, evaluate and acquire/license **new products** into the portfolio



Source opportunities through direct efforts and intermediaries



Seek commercial and late stage development assets that fit our **strategy and focus**

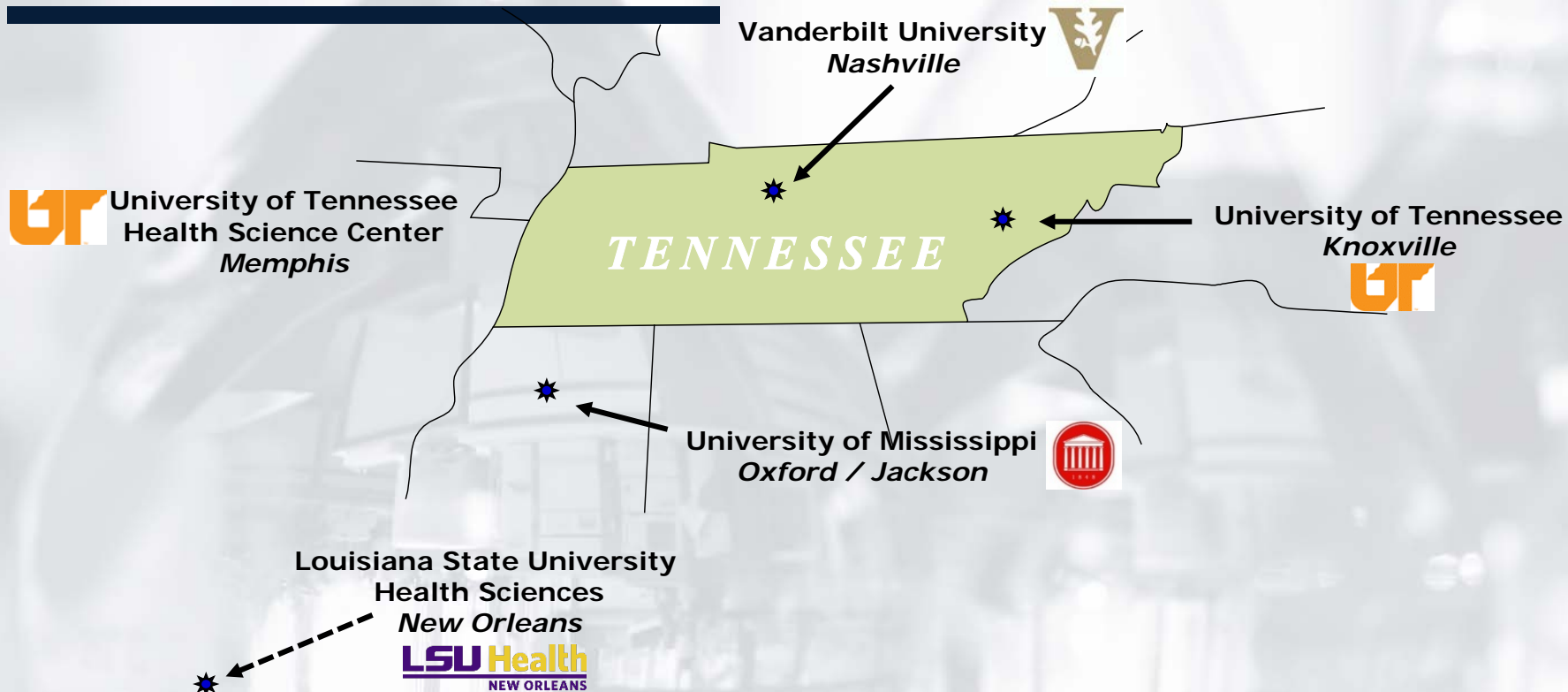
- Branded, Rx products in hospital acute care or gastroenterology
- Sales of **\$5-25 million or larger** with attractive margins



- **New delivery of methotrexate** designed for the treatment of various forms of **arthritis**
- **Exclusive U.S. rights** through a long-term partnership with the **Nordic Group** (based in Europe)
- **Widely used** throughout Europe with a **strong brand presence**
- The U.S. methotrexate market is seeing **significant growth**
- **Preparing FDA submission** for approval in the U.S.



Collaboration Partners



Ifetroban

Overview

- A **potent, selective** antagonist of thromboxane receptor (TP_r)
- **Initially developed by Bristol-Myers Squibb** as an anti-platelet agent
- **Safety is well-established** in 26 clinical studies with **over 1,300 subjects**
- Cumberland is collaborating with Vanderbilt, Harvard, Scripps and other academic centers
- Cumberland successfully manufactures **both IV and oral formulations**



Rationale for Ifetroban

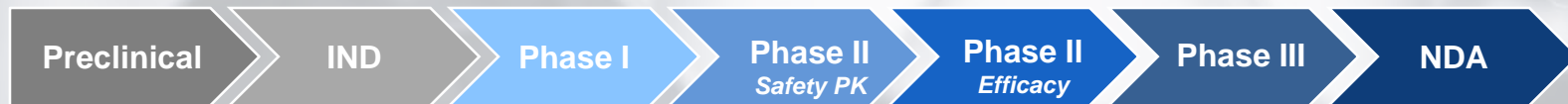
Ifetroban Inhibits The Thromboxane Receptor (TPr):

- Antagonist of smooth muscle contraction, platelet aggregation, and inflammation
 - New data also demonstrates impact on fibrosis
-
- **Hepatorenal Syndrome:** Renal Vasoconstriction, Liver Inflammation, & Fibrosis
 - **Aspirin Exacerbated Respiratory Disease (AERD):** Airway Constriction, Vasoconstriction, & Cellular Infiltration/Inflammation
 - **Systemic Sclerosis:** Vasoconstriction, Autoimmune Inflammatory Process, & Fibrosis
 - **Portal Hypertension:** Endothelial Dysfunction, Liver Fibrosis, & Inflammation



Ifetroban Development Pipeline

Existing Safety Profile of >1,300 Patients



Hepatoren® (*hepatorenal syndrome*)

Boxaban® (*aspirin-exacerbated respiratory disease*)

Vascularan® (*systemic sclerosis*)

Portaban® (*portal hypertension*)

Phase II
Study Data is
Next Milestone

- Anti-inflammatory
- Anti-fibrosis



Financial Overview

(\$ in millions)

FY 2017

| | |
|--------------|--------|
| Net Revenues | \$41.2 |
|--------------|--------|

| | |
|-----------------------|------------|
| Cost of Products Sold | <u>7.4</u> |
|-----------------------|------------|

| | |
|--------------|---------------|
| Gross Profit | \$33.8 |
|--------------|---------------|

| | |
|---------------------|--------|
| Selling & Marketing | \$21.5 |
|---------------------|--------|

| | |
|------------------------|-----|
| Research & Development | 3.9 |
|------------------------|-----|

| | |
|------------------------|------|
| General Administrative | 10.0 |
|------------------------|------|

| | |
|--------------|------------|
| Amortization | <u>2.4</u> |
|--------------|------------|

| | |
|-------------------------|---------|
| Operating Income (Loss) | (\$4.0) |
|-------------------------|---------|

| | |
|---------------------|--------------|
| Adjusted Earnings * | \$0.1 |
|---------------------|--------------|

**Represents a non-GAAP financial measure. For a reconciliation, see the Appendix.*



Summary Balance Sheet

(\$ IN MILLIONS)

FY as of Dec 31, 2017

| | |
|-------------------|--------|
| CASH & SECURITIES | \$50.1 |
| TOTAL ASSETS | 93.2 |
| TOTAL LIABILITIES | 9.8 |
| RETAINED EARNINGS | 11.7 |
| TOTAL EQUITY | 63.9 |

**Continued Share Repurchase Program*

**Tax carry forward credits of \$44 million available*



Building Our Product Portfolio



Deploying a Multifaceted Strategy to Drive Value Creation

Cumberland Moving Forward



Diverse product portfolio **with 7 FDA approved brands**



Proven **development and commercialization capabilities**



Various initiatives in place to support **near-term growth**



Four Phase II products in development with upcoming study milestones

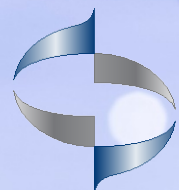


Strong financial position with positive net cash flows from operations



Valuation gap given assets, cash, sales, and pipeline





CUMBERLAND[®]
P H A R M A C E U T I C A L S

Investor Presentation

Appendix



- FDA-approved **oncology hospital brand**
- Indicated to treat toxic effects of **extravasation** (leakage) associated with anthracycline chemotherapy
- Can **limit damage** from extravasation and enable patients to continue treatment
- Anthracyclines are **widely used** in the treatment of breast cancer, soft tissue sarcomas, and lymphomas





Vaprisol[®]

- IV treatment for **hyponatremia**
- Patented, branded hospital product
- Delivered in a pre-mixed bag
- Promotes free water secretion in hospitalized patients suffering from an imbalance of sodium and water levels
- Condition results from a variety of critical care conditions including **ICU, neurology, nephrology, & oncology**
- Acquired from Astellas



H. pylori Treatment
for patients with duodenal ulcer disease

| | Omeclamox®-Pak | PrevPac® | Pylera® |
|---------------------------------|----------------|----------|---------|
| Number of Prescriptions/Co-Pays | 1/1 | 1/1 | 2/2 |
| Days of Therapy | 10 | 10-14 | 10 |
| Doses Per Day | 2 | 2 | 4 |
| Pills Per Day | 8 | 8 | 14 |
| Total Pill Burden | 80 | 112 | 140 |

- **Newest treatment** for Helicobacter pylori (H. pylori) a frequent cause of stomach ulcers
- A triple therapy brand
 - Omeprazole (Prilosec)
 - Clarithromycin
 - Amoxicillin
- **Requires fewer pills** than other products that treat H. pylori
- **Shorter course of therapy** enhances compliance



Partnership Strategy Slide

Streamline Operational Effectiveness and Expanding Market Penetration via Partnerships



U.S. distribution
partnership with
Cardinal Health



Co-Promotional partnership
to **expand our hospital
coverage across the U.S.**



Strategic alliance for
**brand representation
with the U.S.**



Co-Promotional partnership
to **expand medical
specialties covered** in
support of Kristalose



International Distribution

Bringing our medicines to patients throughout the world through a growing network of distinguished international partners

North America



South America

GRIFOLS

Laboratorios
VALMOR, C.A.
Industria Farmacéutica Nacional

Europe **GRIFOLS**



Middle East



Asia



Sandor

Oceania



Hepatoren[®] in HRS

- Patients with HRS have **severe multi-organ dysfunction**
 - **No FDA approved treatment** for this unmet medical need
 - **Orphan Drug candidate**, with an estimated patient population of 175,000
-
- Cumberland has **completed initial Phase IIA study**
 - Ifetroban was **well-tolerated** across all doses with **no safety concerns**
 - Showed **signals of improved kidney function**



Boxaban[®] in AERD

- **Chronic condition** characterized by asthma, sinus infections, and nasal polyps
 - **No FDA approved treatment** for this unmet medical need
 - Potential **Orphan Drug candidate**
-
- Cumberland has **completed initial Phase IIA study**
 - Ifetroban was **well-tolerated** with **no safety concerns**
 - Showed **signals of efficacy** and improved respiratory function



Vascular[®] in SSc

- **Chronic, life-threatening** multi-system autoimmune
- **Highest death rate** of any autoimmune disease
- **No FDA approved treatment** for this unmet medical need
- **Orphan Drug candidate**, with an estimated patient population of 165,000
- Cumberland is currently **conducting an initial Phase IIA study**



Portaban[®] in PH

- The **most serious** complications of **liver cirrhosis**
- **Median survival is 6 years** from diagnosis
- **No FDA approved treatment** for this unmet medical need
- **Orphan Drug candidate**, with an estimated patient population of 100,000
- Cumberland is currently **conducting an initial Phase IIA study**



Reconciliation of Net Income to Adjusted Earnings

(\$ in thousands except per share data)

FY 2017

| | |
|---|------------------|
| Net Income (Loss) Attributed to the Common Shareholders | (\$7,979) |
| Net Loss at Subsidiary Attributable to Noncontrolling Interests | <u>71</u> |
| Net Income (Loss) | (\$8,050) |
| Income Tax Expense (Benefit) | \$4,175 |
| Depreciation and Amortization | 2,648 |
| Share-Based Compensation | 1,115 |
| Other Adjustments to Net Income | 372 |
| Interest Income | (299) |
| Interest Expense | <u>93</u> |
| Adjusted Earnings | \$54 |

