Near-Term Value Creation for Neglected and Rare Diseases Through Innovative Business Models

KALOBIOS

OTC: KBIO

www.kalobios.com

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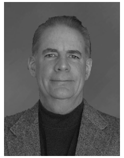
Unique Investment Opportunity

- Turnaround story focused on delivering value to shareholders
- Clinical stage neglected and rare disease assets with clear development pathway and modest investment needed to reach potentially significant value inflection points
  - Benznidazole franchise: potential approval with market exclusivity plus potential PRV sale in latter half of 2018; standalone, focused commercial opportunity in US that can be leveraged with synergistic products in adjacent therapeutic areas to Chagas; larger patient market opportunity in LATAM; compelling strategic partnership opportunity; lifecycle management plan
  - Lenzilumab franchise: multiple potential indications plus potential PRV; significant markets in Orphan areas; multiple licensing and commercial opportunities; lifecycle management plan
- Experienced, focused management with track record of efficient execution and commitment to leadership in responsible, transparent pricing

Leadership

Cameron Durrant, MD, MBA
Chairman and CEO
- Senior pharmaceutical and biotech exec, turnaround specialist
- Senior exec roles at Pharmacia/Pfizer, J+J in US, Merck, GSK in Europe; experience as Exec Chairman, CEO and CFO; CEO roles at three specialty pharma groups
- Expertise in anti-infectives, pediatrics, oncology

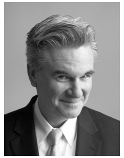
Morgan Lam
Chief Scientific Officer
- Extensive industry experience in clinical research
- Head of Clinical Operations and Development KaloBios
- Executive Director, Medical Affairs, Geron



Dave Tousley, MBA, CPA
Interim Chief Financial Officer
- More than 35 years experience in biotech, spec pharma, big pharma
- Senior exec roles, President, COO, CFO
- Pasteur, Merieux, Connaught, AVAX, airPharma, PediaMed, DARA Biosciences

Tariq Arshad, MD, MBA
Head of Clinical and Medical Affairs
- Extensive industry experience in clinical development
- Experienced in orphan, pediatrics, oncology, pediatric oncology, immunology
- Pharmacia/Pfizer, Genentech, Xoma

Niv Caviar, MBA
Head of Corporate/Business Development
- Senior functional roles in marketing, business development, strategic planning
- Senior exec roles, CEO, EVP-CBO, CFO, VP Bus Dev
- La Jolla Pharma, Allergan, Suneva, SpineOvations, Affymetrix, Accenture



Christopher Bowe
Head of Corporate Affairs
- Deep experience advising CEOs on articulating, executing strategy through corporate affairs
- Former Strategic Affairs advisor at Schering-Plough
- Industry thought leader, prior award-winning writer Financial Times

Steve Pal, MBA
Head of Commercial
- Global pharma and consumer healthcare product commercialisation
- Former Corporate VP Global Strategic Marketing, Health Outcomes, Strategy and Research, Global Medical Affairs, Allergan

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Management Experience Developing, Launching Products in Infectious Diseases, Cardiovascular, Oncology, Other Markets

Sirturo®
bedaquiline
100mg tablets

INCIVEK®
(telaprevir) 375 mg Tablets

ZYVOX®
(linezolid)
SMART BUG. SMART DRUG.

Once Daily
OLYSIO®
SIMEPREVIR
150 mg capsule

Tykerb™
lapatinib ditosylate

NEURONTIN®
(gabapentin)

PREZISTA®
(darunavir) tablets

LIPITOR®
atorvastatin calcium
tablets

Tarceva®
erlotinib

PERJETA™
pertuzumab

IMITREX®
SUMATRIPTAN SUCCINATE

Kadcyla®
trastuzumab emtansine

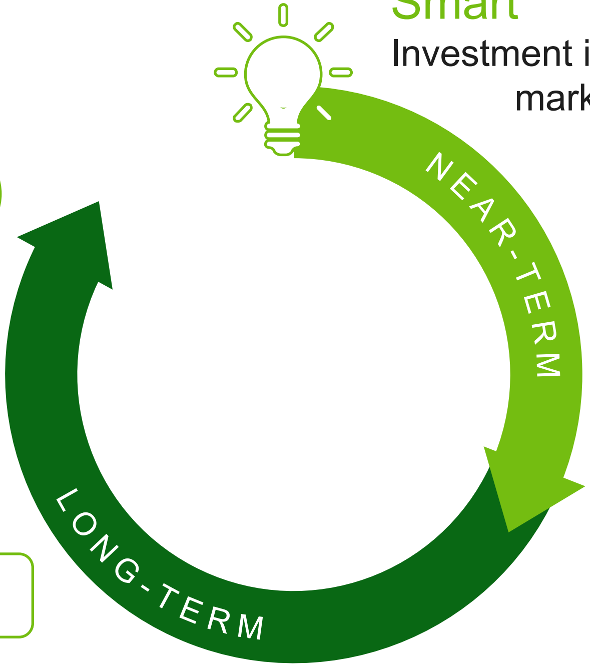
VENCLEXTA™
venetoclax tablets

Zofran®
ondansetron HCl
Injection/Tablets/Oral Solution

Two-Pronged Value Model: Near-Term Return, Propelling Long-Term Value Creation

Hunt
Late-stage, neglected, rare/orphan assets

Smart
Investment in underappreciated assets: speed to market and unmet need in neglected and rare/orphan areas



Leverage
Existing FDA incentives for efficiency: 505(b)(2), Orphan, Priority Review, Fast-Track, Breakthrough

Value Creation
Potential robust commercial return: PRV returns fuel pipeline development

Value Options
From multiple FDA catalysts like PRV, licensing, commercialization, international opportunities

Current Pipeline

	Pre-clin	Phase I	Phase II	Phase III	NDA/BLA
Benznidazole **(potential PRV)** Chagas disease Anti-infective	**Intend to seek approval pursuant to 505(b)(2) pathway**				
Lenzilumab CMML Anti-GM-CSF mAb					
Lenzilumab **(potential PRV)** JMML (peds) – dependent on interim data in CMML Anti-GM-CSF mAb					
Ifabotuzumab **(potential PRV)** Solid (peds) tumors Anti-EphA3 mAb		**Partnering potential**			

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Benznidazole

a potential treatment for Chagas disease (CD)

CHAGAS disease

A chronic, potentially life-threatening infectious disease spread by contact with feces of an infected triatomine insect (called “kissing bugs”); congenital transmission

Insect carries the parasite called *Trypanosoma cruzi*

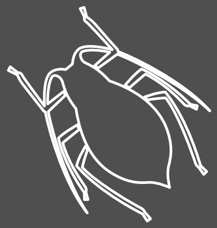
350,000

Infected individuals in US*

Significant portion of chronic patients progress to serious heart illness

Can also affect swallowing, digestion and cause neurological complications

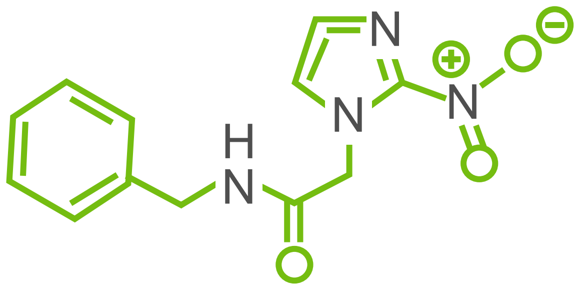
KEY TAKEAWAYS



- Neglected tropical disease presenting in the US and other nations
- On FDA list of NTDs eligible for PRV
- Currently no FDA-approved treatments
- Immediate need for reliable benznidazole supply in US and abroad

Manne-Goehler J, Umeh CA, Montgomery SP, Wirtz VJ (2016) Estimating the Burden of Chagas Disease in the United States. PLoS Negl Trop Dis 10(11): e0005033

Benznidazole: the Preferred Treatment Globally for Chagas



40 years of clinical experience, primarily in Latin America

- Used in tens of thousands of patients

Efficacy ~60% or more in children and can be higher in young children, according to published studies

- Believed to work by inducing free radicals damaging DNA within parasite
- Better tolerated in children; side effect profile extremely well known

Only available in US via special protocol with CDC

Drug supply sporadic, product difficult to obtain

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Benznidazole Strategy, Development Plan on Track

Positive FDA Guidance

- Received minutes from productive meeting December 6, 2016

505(b)(2) Pathway

- Acceptable to FDA
- Expect no clinical efficacy or safety studies

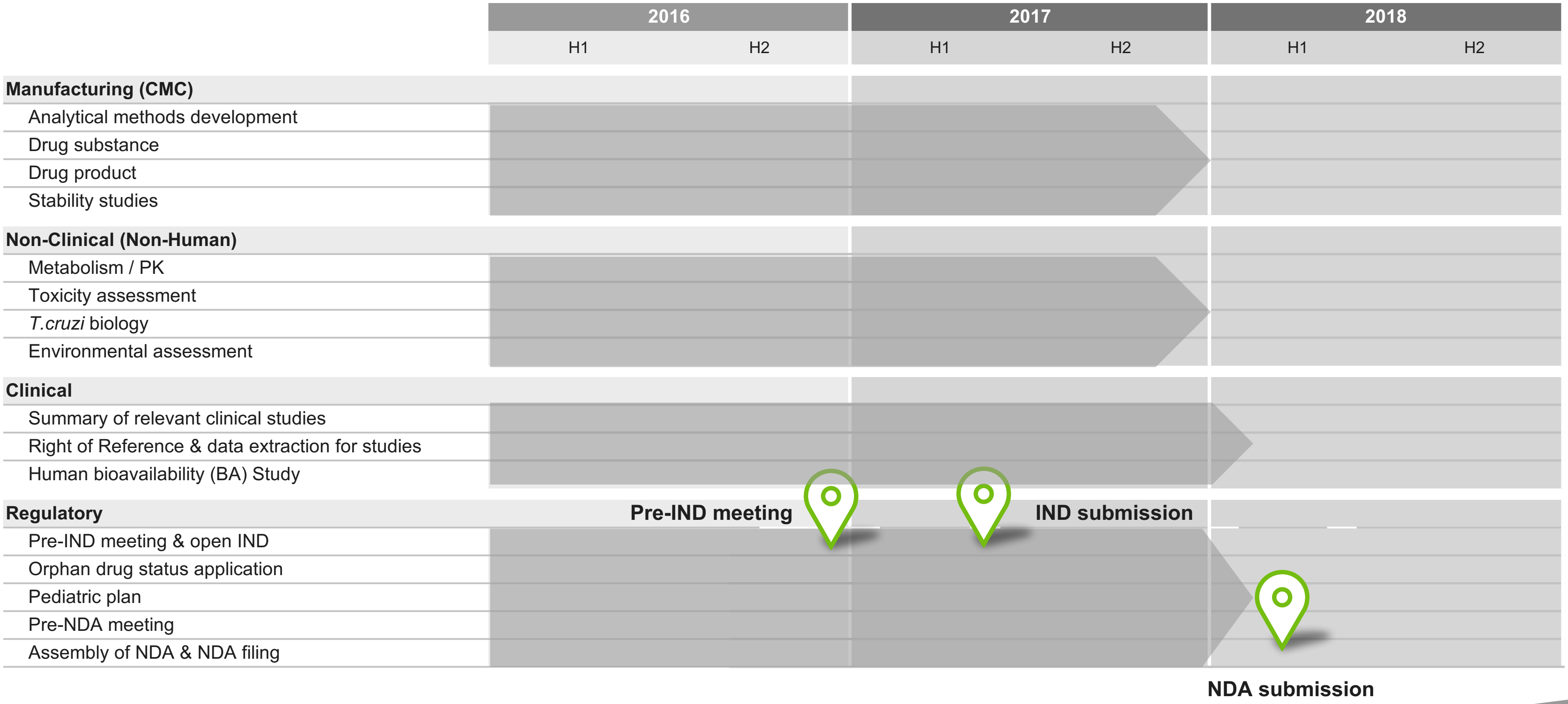
PRV Eligibility Confirmed

- Currently expected to be eligible if approved for Chagas disease

Progress to Submission

- Manufacturing batches of drug complete, prototype tablets made
- Secured safety/efficacy databases
- Next FDA meeting already scheduled

Benznidazole Target Approval Plan



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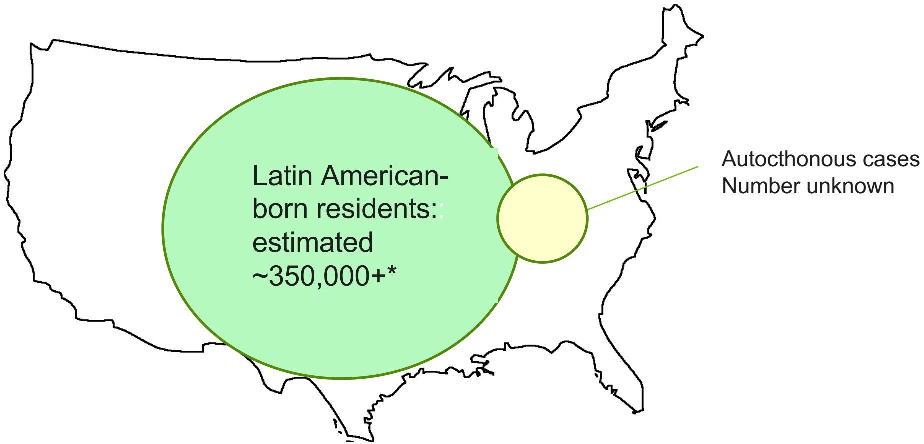
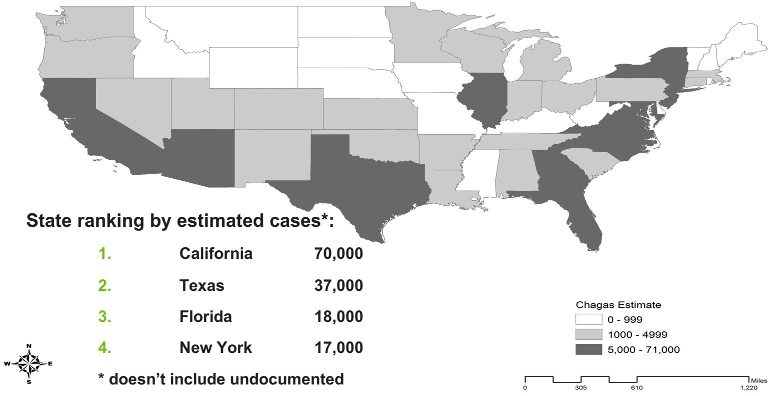
The Burden of Chagas Disease in the US: ~350,000 patients



Sources: Bern and Montgomery 2009, Manne-Goehler et al. 2016

Estimated Cases of Chagas Disease in the United States, 2012



State ranking by estimated cases*:

1.	**California**	**70,000**
2.	**Texas**	**37,000**
3.	**Florida**	**18,000**
4.	**New York**	**17,000**

*** doesn't include undocumented**

**Manne-Goehler J, Umeh CA, Montgomery SP, Wirtz VJ (2016) Estimating the Burden of Chagas Disease in the United States. PLoS Negl Trop Dis 10(11): e0005033.*

Acute Phase + Congenital Prevalence	Chronic Indeterminate Phase Prevalence	Chronic / Symptomatic Phase Prevalence
Less than 1000	200,000-250,000	60,000-100,000

Currently less than 1% diagnosed and less than 0.2% treated

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Building the Benznidazole Franchise: LATAM Commercial

- 8-10 million estimated patients, 120 million people at risk, 300,000 new cases a year, 12-14,000 deaths
- Large volume, lower cost commercial opportunity vs. US; potential for pricing differentiation with multiple KBIO benz versions according to manufacturing source
- US FDA approved product has significant advantages in this market to local companies
- Significant market opportunity
- Synergies with other anti-infectives product or cardiovascular companies
- HF companies have begun local Chagas heart failure market expansion programs
- Potential for strategic licensing/partnership with an anti-infectives or HF company with LATAM presence

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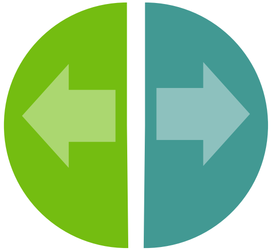
Building the Benznidazole Franchise: Priority Review Voucher (PRV) May Create Options for Significant Potential Return

Range of disclosed sale prices for PRVs is $67.5MM - $350MM



- Holder of PRV can receive priority review for any NDA/BLA
- PRV can be sold to company seeking a competitive jump
- KaloBios open to novel potential PRV transaction structures
- PRV sale could be part of an overall partnering package alongside other elements of the benz franchise

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Benznidazole Franchise Conclusions

- Comprises US commercial (+/- HF linkages), LATAM commercial, manufacturing potential partnerships, LCM upside and PRV sale
- US commercial footprint may allow for leverage with synergistic products and is small, focused and scalable
- Overall package valuable and significant portion of that value may be unlocked near-term, with PRV sale potentially occurring in late 2018

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Lenzilumab

a potential pipeline in a product

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CMML overview

a rare hematologic cancer

Recently classified as separate disease with distinct natural history*

~1,100 Newly diagnosed US patients per year

60+ Age at diagnosis

20 Median overall survival rate in months

** Formerly classified as subtype of the myelodysplastic syndromes (MDS)*

KEY TAKEAWAYS

- High unmet need
- Patients typically unsuitable for stem cell transplant
- 40-90% patients show hypersensitivity to GM-CSF

JMML overview

very rare, frequently lethal pediatric leukemia

~420

New US cases per year

Age of majority of patients at diagnosis is 4 years or younger

~52%

Event-free survival rate at 5 years (with bone marrow transplant)

KEY TAKEAWAYS

- No FDA-approved treatment
- Clear unmet need
- Potential for a rare pediatric disease PRV
- GM-CSF hypersensitivity is hallmark
- Pediatric oncology largely ignored in clinical development

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Relatively Low Investment To Lenzilumab Inflection Point

~$2MM

~$1.4MM

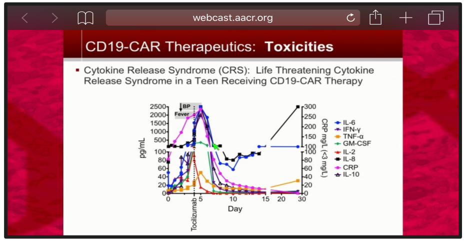
2017				2018	
Q1	Q2	Q3	Q4	Q1	Q2
	Apply: JMML Orphan Drug, Fast Track, Rare Pediatric status		CMML Phase 1 interim data analysis	FDA approval of JMML protocol; clinical drug supply available	**JMML Phase 1 study start**

- CMML trial
- FDA interaction
- Select sites
- FDA interaction

Value Inflection

Building the Lenzilumab Franchise: Intentional Choices of What To Develop, To What Stage, and What To Partner; SC Formulation

- Develop CMML to interim data read Q4 2017
- Pivot to JMML and retain and develop to approval or partner prior, but keep interest in any potential PRV sale proceeds
- Develop in Cytokine Release Syndrome: huge interest in making CAR-T therapy more useful; consider CAR-T partners



- Retain and develop to data inflexion points in ped MS and neurofibromatosis and potentially to approval and commercialize as large market Orphan indications with no FDA-approved therapies
- Partner out CMML (and other hem oncology indications, eg, AMML, CML)
- Partner out ultra-Orphan indications (RAS-opathies, Noonan) with expert ultra-Orphan companies

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Lenzilumab Franchise Conclusions

- Comprises US development and partnering, ex-US partnering, US focused Orphan commercial, LCM upside and PRV sale
- US commercial Orphan footprint could be scaled independently or via partnerships
- Potential opportunity to benefit from CAR-T interest
- US and ex-US ultra-Orphan potential partnerships with expert players adds further value
- Overall potential for significant value through LCM with additional indications around the ‘pipeline-in-a-product’ strategy, with PRV sale potentially adding non-dilutive capital in 3-4 years

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Capitalization Summary

Debt	**$10.1 million**
Common Shares Outstanding	**15.0 million**
Stock Options (WAEP $3.85)	**2.4 million**
Warrants (WAEP $13.52)	**0.4 million**
Fully Diluted Shares Outstanding	**17.8 million**

Note: share and per share amounts as of 3/31/17
Debt includes term loan financings

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Summary

- Attractive asset portfolio with potential to deliver shareholder value quickly
- Unique near-term/long-term potential value creation opportunity
- Business strategy that leverages existing U.S. regulatory and development incentives to build unique, high value franchises around key assets
- Deeply focused new management team with a demonstrated track record of execution

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