



## Corporate Presentation

# Forward-Looking Statements

This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding the anticipated timing of commercial launch of Canalevia, obtaining MUMS designation, and timing of expanding indication for Canalevia to general watery diarrhea and timing of data from planned proof of concept, field and other studies are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “aim,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this presentation are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this presentation and are subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and some of which are beyond our control. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in a dynamic industry and economy. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties that we may face. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

We have filed a registration statement (including a prospectus) with the SEC for the offering that this presentation relates to, but such registration statement has not been declared effective. Before you invest, you should read the prospectus, including the Risk Factors set forth therein in our registration statement and the documents that are filed as exhibits to the registration statement for more complete information about the Company and the offering. You can review these documents and other documents for free by visiting EDGAR on the SEC website [www.sec.gov](http://www.sec.gov). Alternatively, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by calling Aegis Capital Corp. by telephone at 212-813-1010 or by email to [prospectus@aegiscap.com](mailto:prospectus@aegiscap.com).

This presentation shall not constitute an offer to sell, or the solicitation of any offer to buy, nor will there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state or jurisdiction. The offering will be made only by means of a prospectus pursuant to a registration statement that is filed with the SEC, after such registration statement becomes effective.



# Free Writing Prospectus Statement

This presentation highlights basic information about us and the offering to which this communication relates. Because it is a summary, it does not contain all of the information that you should consider before investing in our common stock.

We have filed a registration statement (including a prospectus, which currently is in preliminary form) with the US Securities and Exchange Commission for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and the offering.

You may access these documents for free by visiting EDGAR on the SEC website at <http://www.sec.gov>.

The preliminary prospectus, dated April 27, 2015, is available on the SEC website at <http://www.sec.gov>.

Alternatively, we or any underwriter participating in the offering will arrange to send you the preliminary prospectus and, when available, the final prospectus and/or any supplements thereto if you contact Aegis Capital Corp., Prospectus Department, 810 Seventh Avenue, 18th Floor, New York, NY 10019, telephone: 212-813-1010, email: [prospectus@aegiscap.com](mailto:prospectus@aegiscap.com).



# Initial Public Offering Summary

**Issuer** Jaguar Animal Health, Inc.

**Exchange/Ticker** Nasdaq / JAGX

**Shares Offered** 3,150,000 Shares of Common Stock (100% Primary)

**Over-Allotment** 15% (100% Primary)

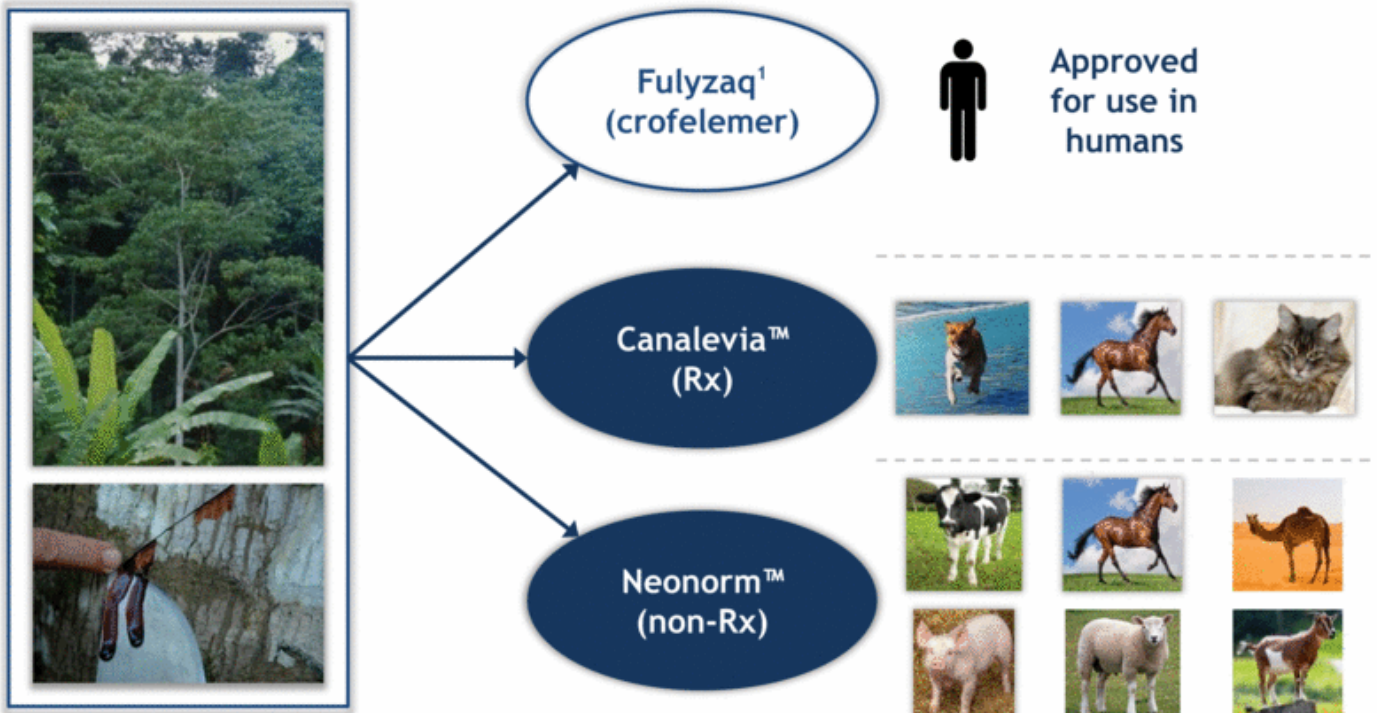
**Expected Price** \$7.00 Per Share

**Sole Book-runner** Aegis Capital Corp.

**Co-Managers** CRT Capital and Feltl and Company



# Jaguar GI Product Development Strategy



Intellectual property applies globally to all products across species



<sup>1</sup>Fulyzaq was approved by the FDA in 2012 for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. The product is a registered trademark of and is marketed by Salix Pharmaceuticals, Inc.



# Investment Highlights

## First-in-Class GI Products for Animals

- The only FDA-approved human anti-secretory diarrhea product<sup>1</sup>
- Significant animal and human data
- Natural products from *Croton lechleri*

## Rationale for MOA

- Highly conserved Mechanism of Action (MOA) in all mammals
- Production and companion animal data in hand

## Recent Milestones

- Initiated rolling New Animal Drug Application (NADA) filing in December 2014
- Statistically significant proof-of-concept (POC) data in dogs released February 2015
- Ongoing product launch supplemented by South American distribution agreement

## Market Expansion

- Species-specific Rx formulations and trial/endpoint design: dogs, horses and cats
- Non-Rx: Beef cattle, horses, goats and sheep

## Extensive Expertise

- Expertise in GI development
- Medicine, regulatory and commercial experience within animal health

## Non-Rx Lays Foundation For Rx Business

- Low barrier market entry for production animal products
- Common educational and promotional activities focus on first-in-class MOA
- Companion animal drugs drive long-term business opportunity



<sup>1</sup>Fulyzaq was approved by the FDA in 2012 for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. The product is a Jaguar trademark of and is marketed by Salix Pharmaceuticals, Inc.

# Extensive GI & Animal Health Expertise

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**Lisa Conte**  
Founder, CEO & President

- 25+ years of industry experience
  - Obtained first anti-secretory human product FDA approval
- 

**Michael Hauser DVM, M.S.**  
Chief Veterinary Officer,  
Clinical Operations

- Established Dubai Animal Hospital System
  - Race horse private practice
- 

**John Kallassy**  
Chief Financial &  
Operating Officer

- Former CEO of Zargis Medical Corp., which developed and sold human cardiac diagnostic devices
  - Former CFO of Speedus Corp.
- 

**Steven King, Ph.D.**  
EVP, Ethnobotany & Supply

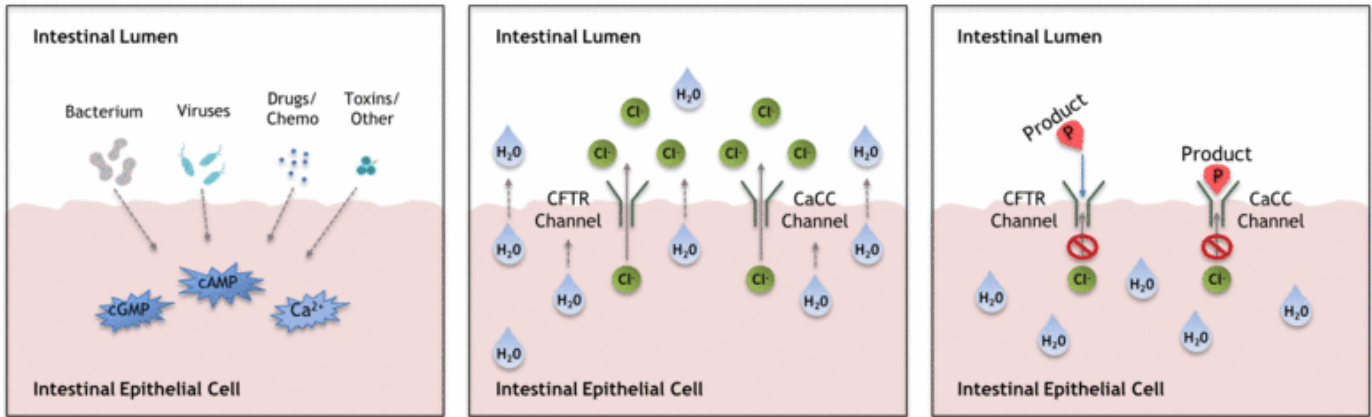
- 22+ years experience surrounding supply of crofelemer
  - Previously with Napo
- 

**Ian Parker**  
VP, Commercial Operations

- Pfizer, SmithKline Beecham, Nutramax, Vétoquinol
  - Product experience: Rimadyl, Cosequin, Strongid C2X
-

# Common Pathway and MOA in Mammals

*Canalevia and Neonorm are distinct products that act at the same last step in a physiological pathway generally present in mammals, regardless of cause*



Acts locally in the gut and is minimally absorbed systemically



# Rx Drug Product Candidates

Product Candidate	Species	Indication	Anticipated Milestones	
			2015	2016
Canalevia		CID		<ul style="list-style-type: none"> <li>NADA approval first quarter</li> <li>Commercial launch first quarter</li> </ul>
		General Watery Diarrhea	<ul style="list-style-type: none"> <li>Concurrence meeting with FDA</li> <li>Initiate pivotal trial</li> </ul>	<ul style="list-style-type: none"> <li>1H, Initiate filing NADA</li> </ul>
Specific formulations of crofelemer		Acute Colitis	<ul style="list-style-type: none"> <li>2H, Safety data</li> <li>2H, Apply for MUMS designation</li> </ul>	<ul style="list-style-type: none"> <li>Initiate filing NADA</li> </ul>
		Diarrhea, Colonic and Gastric Ulcers	<ul style="list-style-type: none"> <li>2H, POC data</li> </ul>	<ul style="list-style-type: none"> <li>2H, Pivotal trial data</li> </ul>
		General Watery Diarrhea	<ul style="list-style-type: none"> <li>2H 2015/early 2016, Safety &amp; POC data</li> </ul>	<ul style="list-style-type: none"> <li>Top-line pivotal efficacy data</li> </ul>
Virend (topical)		Herpes Virus		<ul style="list-style-type: none"> <li>POC &amp; top line pivotal efficacy data</li> </ul>
Specific formulations of NP-500		Obesity-related Metabolic Dysfunction		<ul style="list-style-type: none"> <li>Initiate POC study</li> </ul>
		Metabolic Syndrome		<ul style="list-style-type: none"> <li>Initiate POC study</li> </ul>
		Type II Diabetes		<ul style="list-style-type: none"> <li>Initiate POC study</li> </ul>

# Canalevia: Diarrhea in Dogs

- In the US, one of the most common reasons for vet and emergency visits for dogs
  - ❖ 6 million cases annually of acute and chronic watery diarrhea
- No FDA-approved anti-secretory products for dogs
  - ❖ Current treatments
    - Rehydration
    - Diet change
    - Absorbents/binding agents (Pepto-Bismol)
    - Anti-motility agents (Imodium)
    - Antibiotics
- No current treatments directly address dehydration and watery flow

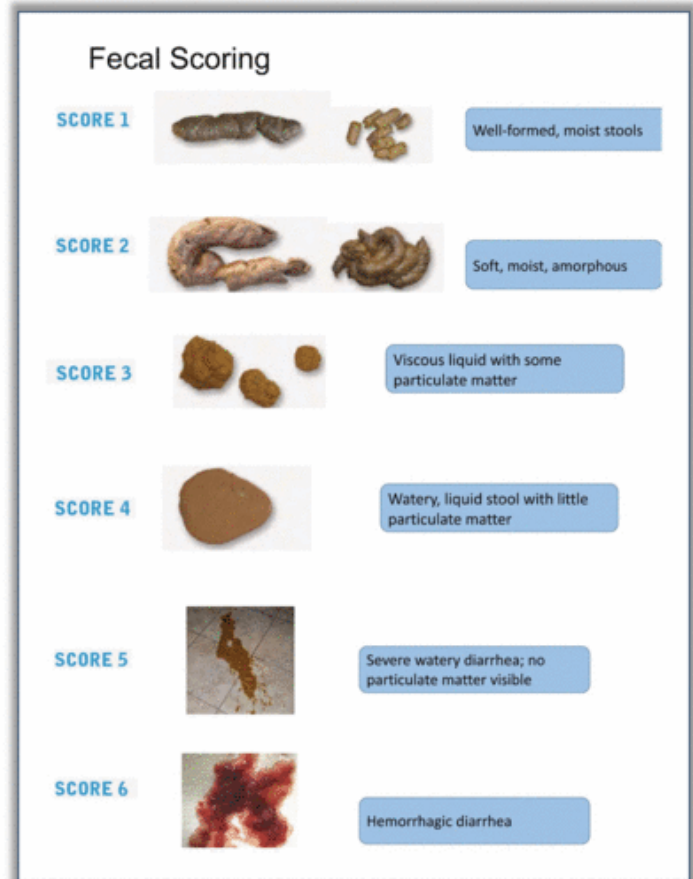


# Canalevia: Rolling NADA Filing in 2014 for Chemotherapy-induced Diarrhea (CID) in Dogs

- Canalevia: Oral, twice daily, canine-friendly formulation of crofelemer
- Over 230,000 dogs receive chemotherapy in the US
  - ❖ Estimated that ~25% suffer from CID
- Applied for MUMS designation to shorten time to commercialization
  - ❖ MUMS designation is a status similar to “orphan drug” status for human drugs
  - ❖ Safety package accepted by FDA: **Toxicology studies showed minimal to no adverse effects following dosing up to approximately 50 times the anticipated efficacious dose**
  - ❖ Initiated NADA filing for CID in dogs in 4Q 2014
  - ❖ Planned commercialization in early 2016

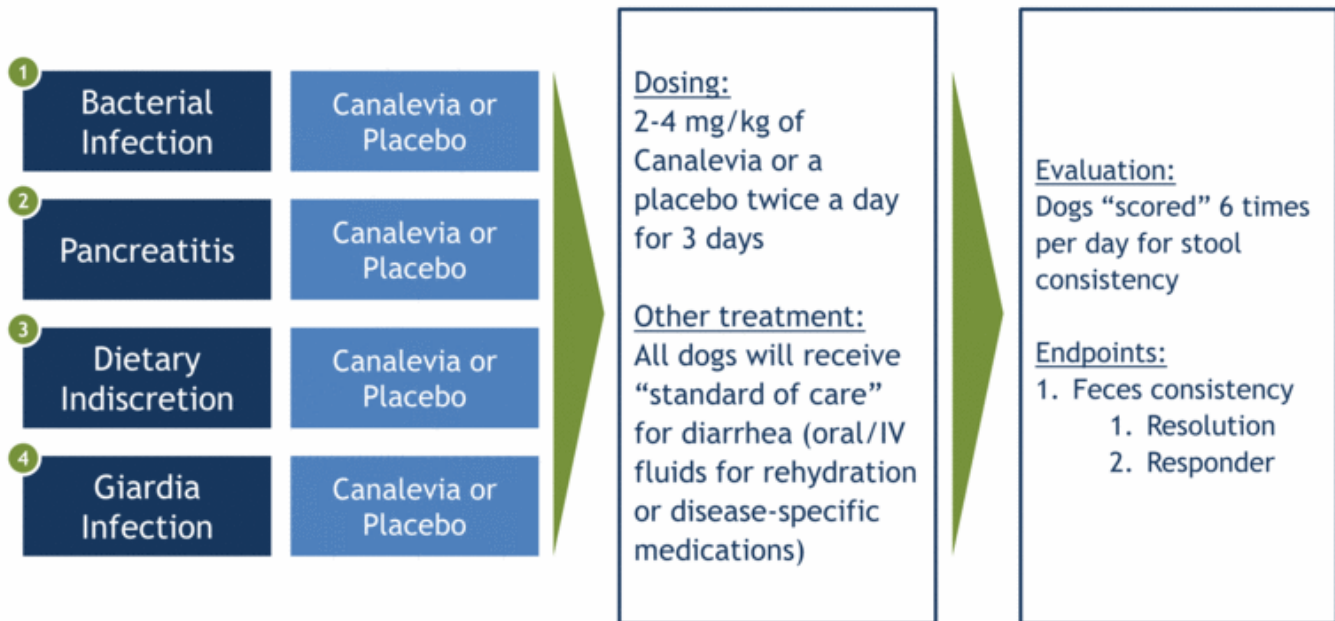
# Proof of concept study: Expand indication to general watery diarrhea

- Purpose: Gather data and exploratory analyses in support of concurrence meeting with FDA
- Design of pivotal trial and statistical analysis plan
- Demonstrate significance in support of common Mechanism of Action across humans, calves, now dogs
- Endpoint scoring: Purina dog fecal scoring chart of 1-6 (formed to unformed/6=bloody)



# Canalevia: General Watery Diarrhea POC Study

- Enrollment criteria: 4 or 5 stool formulation



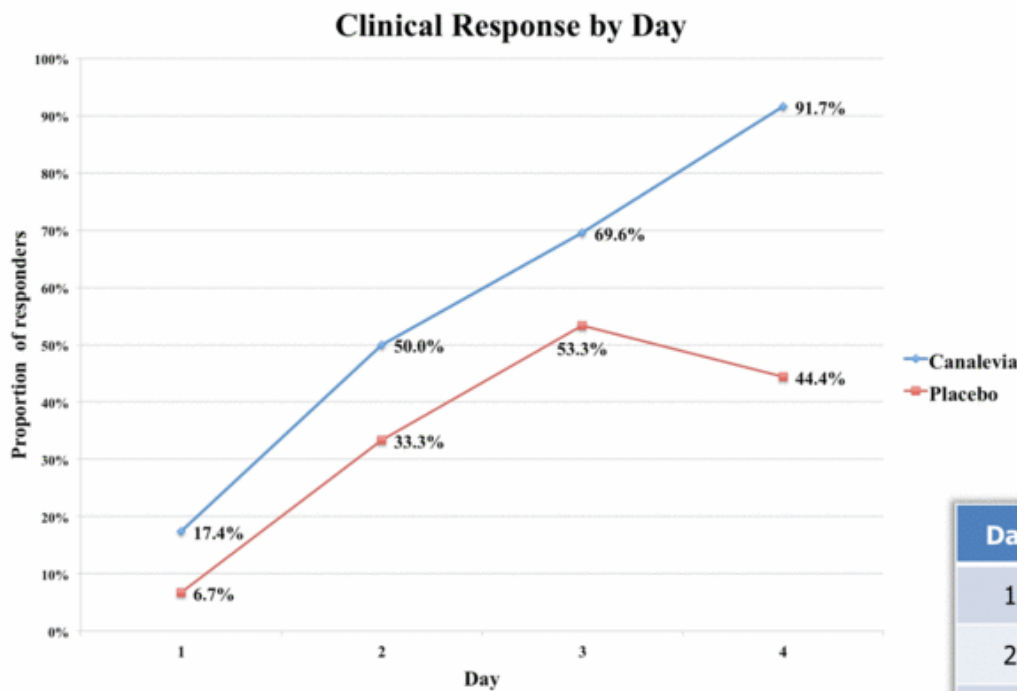


## Endpoints: Achieved significance with 39 “all - comer” evaluable dogs

- 23 Canalevia, 16 placebo

- Resolution: 91% vs. 50% ( $p=0.007$ )
  - ❖ Fecal score of 1 or 2
- Responder (at conclusion of treatment): 92% vs. 44% ( $p=0.046$ )
  - ❖ Across all days:  $p=0.013$
  - ❖ Responder is a dog who had formed stools with no follow up unformed stool, day by day
- Response in Canalevia arm is greater than placebo on all days by at least 10%

# Results Support Conclusion That Canalevia is Superior to Placebo



**Proportion of Responders**

Day	Canalevia	Placebo
1	17.4%	6.7%
2	50.0%	33.3%
3	69.6%	53.3%
4	91.7%	44.4%

Clinical response stratified by day,  $p=0.013$ .  
Significant difference occurs on Day 4,  $p=0.046$

## Canalevia: Next Steps

- Plan to expand labeled indication to general watery diarrhea, regardless of cause
- Concurrence meeting with FDA in 2015
- Pivotal efficacy initiation in 2015
- Commercial launch expected in early 2017
  - ❖ Expansion of promotion with initiation of filing of NADA general watery diarrhea

# Equine Diarrhea, Gastric & Colonic Ulcer Product

- 97% of high performance horses have either gastric or colonic ulcers\*
- 63% of high performance horses have colonic ulcers\*
- 87% of high performance horses have gastric ulcers\*
- 54% of high performance horses have both colonic and gastric ulcers\*
- Diarrhea is often a coincident problem
- Unmet need: No marketed FDA-approved treatments for colonic ulcers in horses; chronic treatment cost ~\$50/day
- International synergies for market awareness and demand
- ~4 mm high performance horses in US
  - ❖ Chronic treatment regimen indicated
- Next steps: Proof of concept study in 2015



\*Pellegrini, Franklin L., Results of a large-scale necroscopic study of equine colonic ulcers. J Equine Vet Sci 2005; v. 25, no. 3; 113-117.

## New IP





- Prebiotic effect of polyphenols/*Croton lechleri*-derived products
- Rifaximin combination

## Current IP

- Exclusive worldwide veterinary license to all Napo IP
  - ❖ Zero to low royalties
  - ❖ Exclusive global license to library of 2,300+ medicinal plants for all veterinary uses
- 11 Jaguar provisional patent applications on file



# Non-Rx Products

Products	Species	Use	Anticipated Milestones	
			2015	2016
Neonorm Calf		Improve gut health and normalize stool formation in pre-weaned dairy calves with scours	<ul style="list-style-type: none"> <li>Field study results second quarter (studies have been ongoing since fourth quarter of 2014); includes evaluation of prebiotic effect</li> </ul>	<ul style="list-style-type: none"> <li>South American commercial launch</li> </ul>
Species-specific formulations of Neonorm		Normalize stool formation (horse foals)	<ul style="list-style-type: none"> <li>2H, Safety &amp; efficacy data</li> <li>Commercial launch</li> </ul>	
		Normalize stool formation (adult horses)		<ul style="list-style-type: none"> <li>Safety &amp; efficacy data</li> <li>Commercial launch</li> </ul>
		Normalize stool formation (other farm/production animals)	<ul style="list-style-type: none"> <li>Initiate POC studies in various species based on market research</li> </ul>	

# Neonorm Calf Commercial Strategy (non-Rx)

## “Promotes normal stool formation”

- September 2014 Geographical Launch: World Dairy Expo
- National launch in February 2015
- Geographical markets: Shipped ~\$450k of Neonorm Calf to distributors
- Targeted sales force supporting regional distributors and vet clinics
- Leveraging KOL strategy (key for regional support)
- May 2014 Neonorm Study demonstrated significant results in treatment of calves with scours
  - ❖ Translating health endpoints to economic benefit
- Master distribution partnership supporting national launch



*Each dot represents 1,500 cows*  
(Reprinted by permission from the March 25, 2013 issue of  
Hoard's Dairyman Magazine, Fort Atkinson, WI)

# Neonorm *E. coli* Challenge Study

- Enrolled 39 calves randomized into 2 groups
  - ❖ 20 calves received Neonorm
  - ❖ 19 calves received placebo
- All calves challenged with *E. coli* on Day 1
- First dose was administered to all calves at 12 hours
  - ❖ Additional doses administered every 12 hours until hour 72
  - ❖ Total of 6 doses
- Calves with watery diarrhea were treated for dehydration with oral rehydration therapy or intravenous fluid



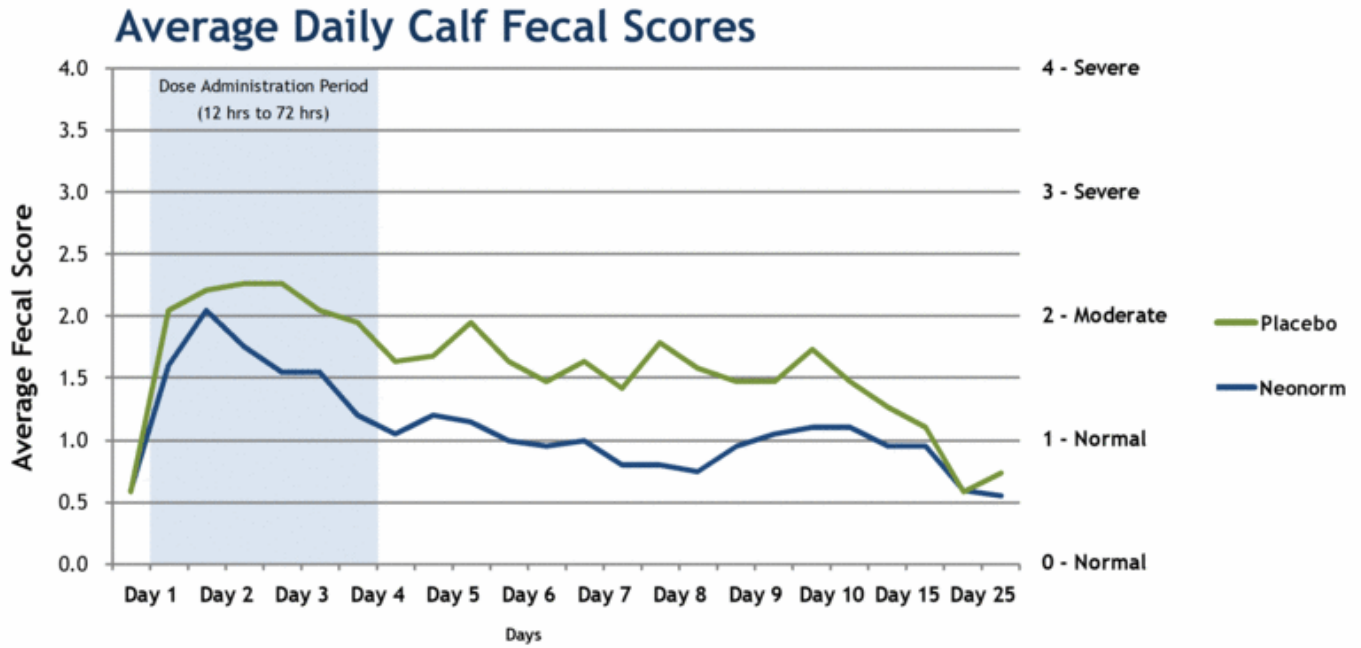
# Neonorm *E. coli* Challenge Study

- Calves evaluated twice-daily for 10 days as well as at days 15 and 25
- Measurements
  - ❖ Fecal consistency
  - ❖ Weight
  - ❖ Mortality
  - ❖ Dehydration
  - ❖ Appetite
  - ❖ Attitude
  - ❖ Other adverse health disorders



Modified University of Wisconsin Calf Health Scoring Chart			
	Score	Calf Feces Description	Potential Treatment
Normal	0	Normal, formed pasty feces	None
	1	Semi-formed pasty feces	
Moderate Diarrhea	2	Loose, watery feces but stays on top of bedding	Oral electrolytes
Severe Diarrhea	3	Watery feces with mucus, sifts through bedding	Oral electrolytes, intravenous fluids and antibiotics
	4	Diarrhea with blood	

# Neonorm *E. coli* Challenge Study



Neonorm significantly decreased the severity of watery diarrhea over the course of the 25 days ( $p=0.0133$ )



# Neonorm *E. coli* Challenge Study

## Health and Economic Impacts

	Avg. Duration of Watery Diarrhea (Score $\geq 2$ )	Avg. Duration of Severe Watery Diarrhea (Score 3 or 4)
Neonorm	3.03 days	1.10 days
Placebo	5.16 days	2.42 days

	# of calves	Mortality	Avg. daily weight gain after 25 days
Neonorm	20	5% (1)	15.5 pounds (281g/day)
Placebo	19	21% (4)	12.1 pounds (219g/day)

*The total economic advantage of Neonorm could be ~\$110 per calf.*

## NEXT STEPS

- Field trials
  - ❖ ~700 calves
- KOL outreach
- Additional distributor agreements
- Sales reps to key accounts
- Outreach at dairy meetings
- Expansion to horses, sheep and goats

## Jaguar Animal Health Signs Agreement with Latin America's Largest Veterinary Biotechnology Company: Biogenesis Bagó ("Bagó"), based in Argentina

- A region that contains 401 million dairy and beef cattle and produces 11% of the world's milk supply.
- Bagó chosen as winner of the *Animal Pharm* award for "Best Company - Latin & South America" in January, 2015.
- The agreement provides Bagó with exclusive distribution rights for Jaguar's Neonorm Calf product in Argentina, Brazil, Paraguay, Uruguay & Bolivia.
- Jaguar and Bagó agreed to annual sales goals for each year of the five-year agreement, including guaranteed minimums for retention of exclusivity and an additional incentive for exceeding stretch goals.



Agreement Covers Red-shaded Regions

# US Market: Initial GI Products

## Canalevia Market

### Rx

#### Companion Animals

US Population:  
74 mm cats, 70 mm dogs

<u>Total Cases</u>	<u>Acute Cases</u>
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6 mm dogs	~ Two-thirds
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2.9 mm cats	~ Two-thirds
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**3.9 mm performance horses**

## Neonorm Market

### Non-Rx

#### Dairy, Beef, Horses

<u>Population</u>	<u>Incidence</u>
>11 mm dairy calves	23.9%*
~22 mm beef calves	2.4%**
9.2 mm horses	>10%

*\*Incidence in dairy heifer calves*

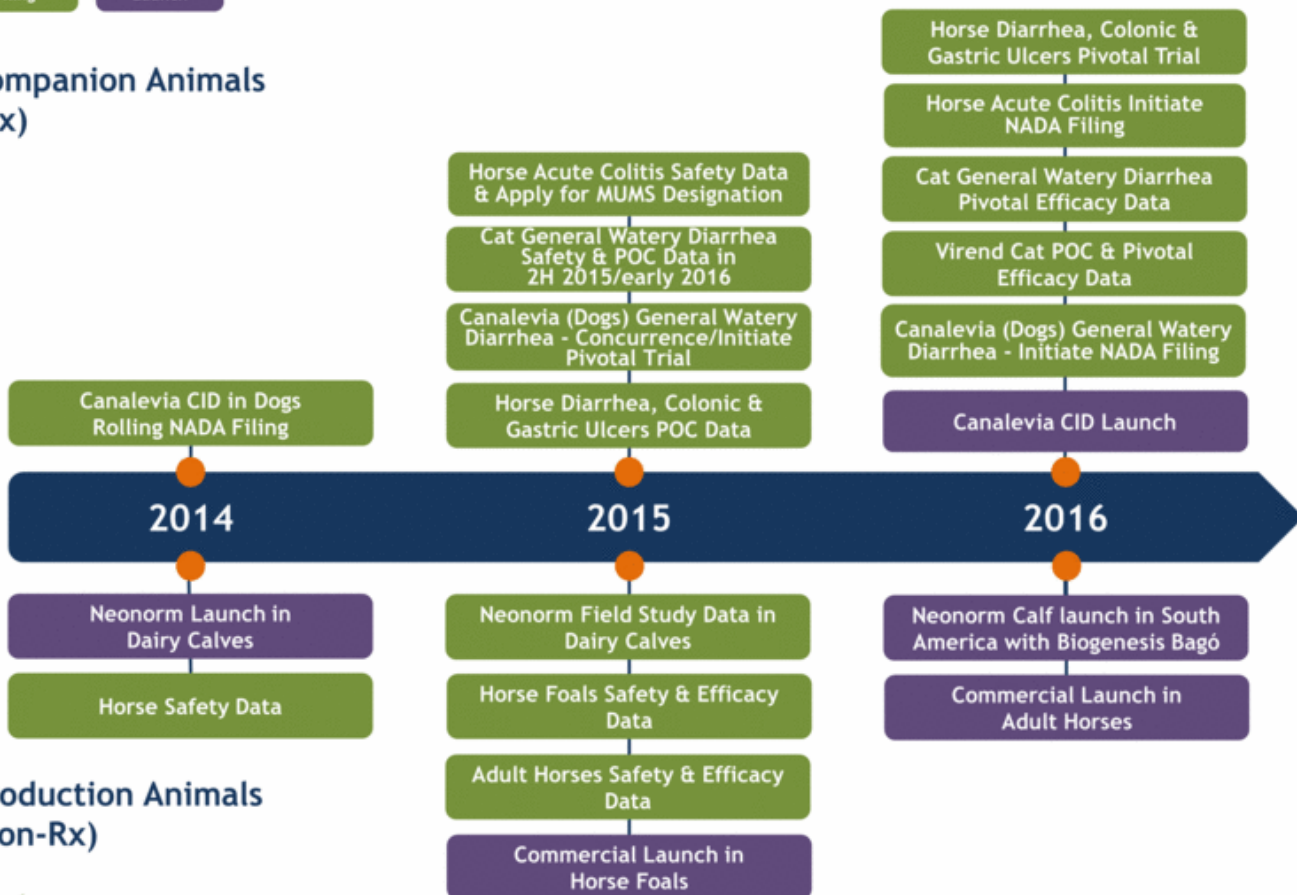
*\*\*Beef calves < 3 weeks old*

# Selected Milestones

Data / Filing

Commercial Launch

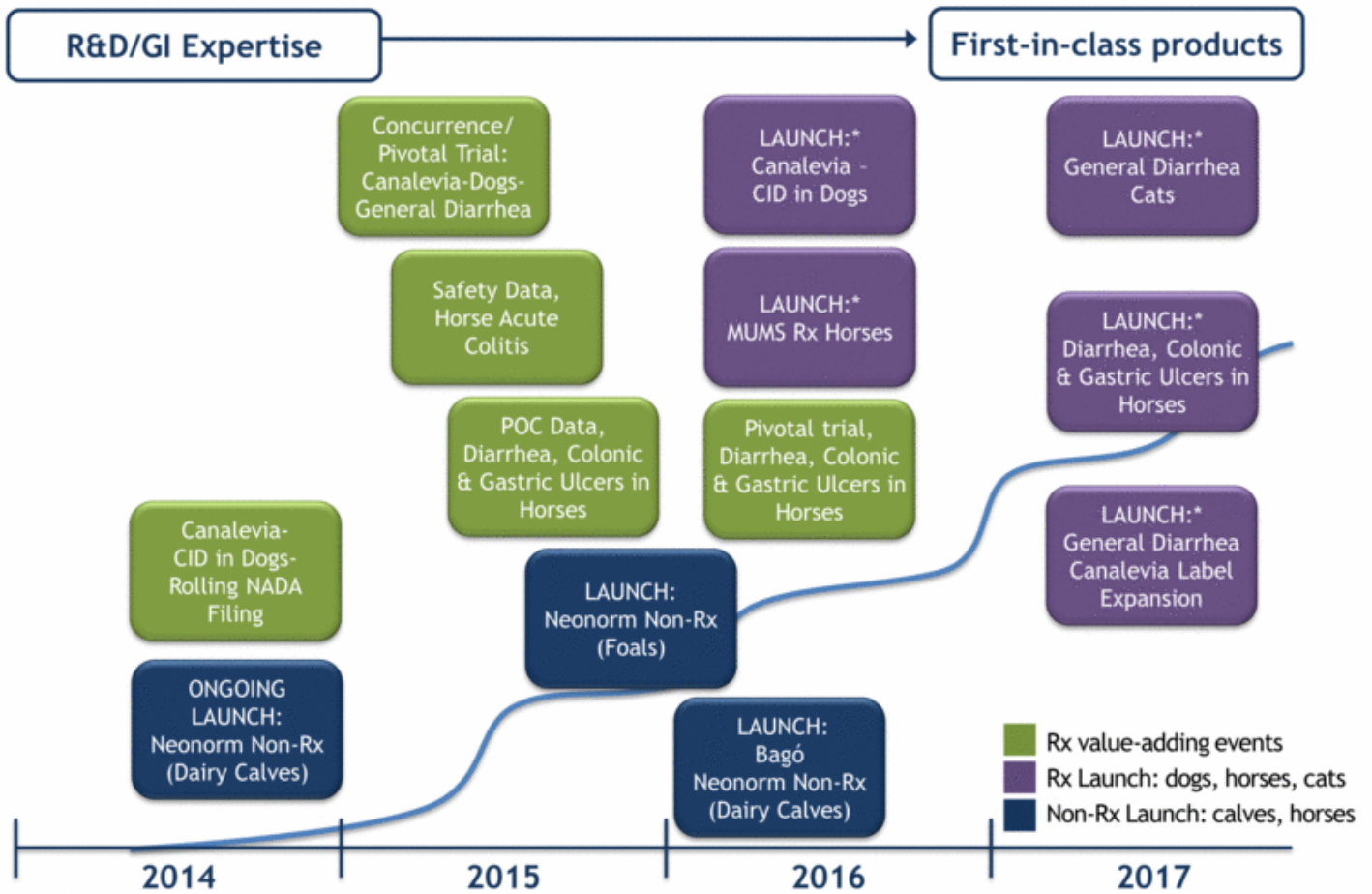
## Companion Animals (Rx)



## Production Animals (non-Rx)



# Jaguar Commercialization Horizon



\*Contingent upon FDA approval

# Capital Structure<sup>1</sup>

(Excluding shares in this offering)

	Shares Outstanding	%
Company Stock <sup>2</sup>	5,259,923	77.4%
Equity Awards-Stock Options <sup>3</sup>	862,584	12.7%
Equity Awards-Restricted Stock Units <sup>4</sup>	70,386	1.0%
Warrants <sup>5</sup>	605,873	8.9%
Adjusted Shares Outstanding	<u>6,798,766</u>	<u>100%</u>

<sup>1</sup> As of 12/31/14.

<sup>2</sup> Pro forma outstanding, including all securities that convert at IPO, but excludes up to 44,642 shares issuable upon conversion of outstanding notes.

<sup>3</sup> Weighted average exercise price of \$3.69 per share; includes 203,030 options authorized after 12/31/14 to be granted upon IPO with an exercise price equal to IPO price of \$7.00 (reflected in weighted average price).

<sup>4</sup> Includes 1,484 additional employee RSUs issued after 12/31/15 to be granted upon IPO.

<sup>5</sup> Weighted average warrant exercise price of \$4.57 per share; includes warrants for 111,605 shares issued after 12/31/14, but excludes representative warrants for 157,500 shares (5% of shares issued in the IPO), not exercisable for one year.





# Use of Proceeds

(Offering size of \$22.1 million)

	Amount (\$ Mil.)	%
Canalevia clinical studies and regulatory approval costs	2.4	10.9%
Other Rx clinical studies and regulatory approval costs	2.1	9.5%
Commercial activities for Canalevia and Neonorm inside and outside the US	3.5	15.9%
Studies and field trials for Neonorm Calf	1.0	4.5%
Species specific formulations for all of our products	2.2	10.0%
Third-party manufacturing; including Indena S.p.A	2.1	9.5%
Bridge loan repayment	1.3	5.9%
Working capital and general corporate purposes <sup>1</sup>	7.5	33.8%
<b>TOTAL</b>	<b>22.1</b>	<b>100%</b>

<sup>1</sup> Includes IPO-related costs



# Investment Highlights

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Four silhouettes of animals are arranged horizontally: a cat, a dog, a cow, and a horse. The silhouettes are in shades of blue and green.

 **Jaguar**   
ANIMAL HEALTH

Healthy Animals. Happy Humans. Naturally.

