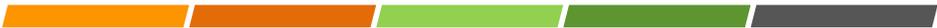




# Avivagen



## Company Presentation

May 2018

This presentation includes certain forward-looking statements that are based upon current expectations of management, which involve risks and uncertainties associated with the business of Avivagen Inc. and the environment in which the business operates. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking, including those identified by the expressions “anticipate”, “become”, “believe”, “can”, “estimate”, “prospective”, “further”, “targeting”, “would” and similar expressions.

Statements about anticipated market opportunity in livestock; the potential outcome of current discussions with potential customers and regulators in various jurisdictions; the outcome of regulatory processes currently underway; the implications of trial results to Avivagen’s business; Avivagen’s growth plans for livestock and companion animal products; expectations with respect to the growth of the relationship with UNAHCO, increased orders from UNAHCO and the effects of the UNAHCO relationship on Avivagen’s business in general; Avivagen’s expectation that it can repeat the UNAHCO model in other countries; potential customers; Avivagen’s plans to achieve sales goals for its companion animal products; illustrations of the global opportunity for Avivagen; future customer wins, path to sales and additional customer adoption of Avivagen’s companion animal products; additional large market applications and Avivagen’s technology extended into human health applications are all forward looking statements.

These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results or events to differ materially from current expectations. Such Avivagen risks and uncertainties include, but are not limited to, the following: the accuracy of third party information included in this presentation; the perceived market opportunity and ongoing discussions with third parties and customers may not translate into orders for Avivagen’s products; Avivagen’s growth strategy may not be as successful as Avivagen anticipates; UNAHCO could stop or fail to increase its orders of Avivagen’s products and Avivagen may not realize the anticipated benefits from the UNAHCO relationship; Avivagen may not be able to Repeat the UNAHCO model in other jurisdictions for any number of reasons; Avivagen’s ability to continue as a going concern; the results of ongoing or future trials may not be positive or sufficiently positive, third parties may not perceive Avivagen’s trial results as positively as Avivagen does; even if the results are positive, there is no guarantee that its products will be commercially successful or that requisite regulatory approvals will be obtained for existing or new applications; Avivagen may not be successful with future customer wins or in securing additional customer adaption for its companion animal products; and Avivagen’s technology may not be expanded into or may not receive regulatory approvals for human applications.

Accordingly, you should not place undue reliance on forward-looking statements.

Please refer to the risk factors relating to Avivagen’s business as outlined in its Management’s Discussion and Analysis of Financial Condition and Results of Operations for the year ended October 31, 2017 and other securities filings available at [www.SEDAR.com](http://www.SEDAR.com).

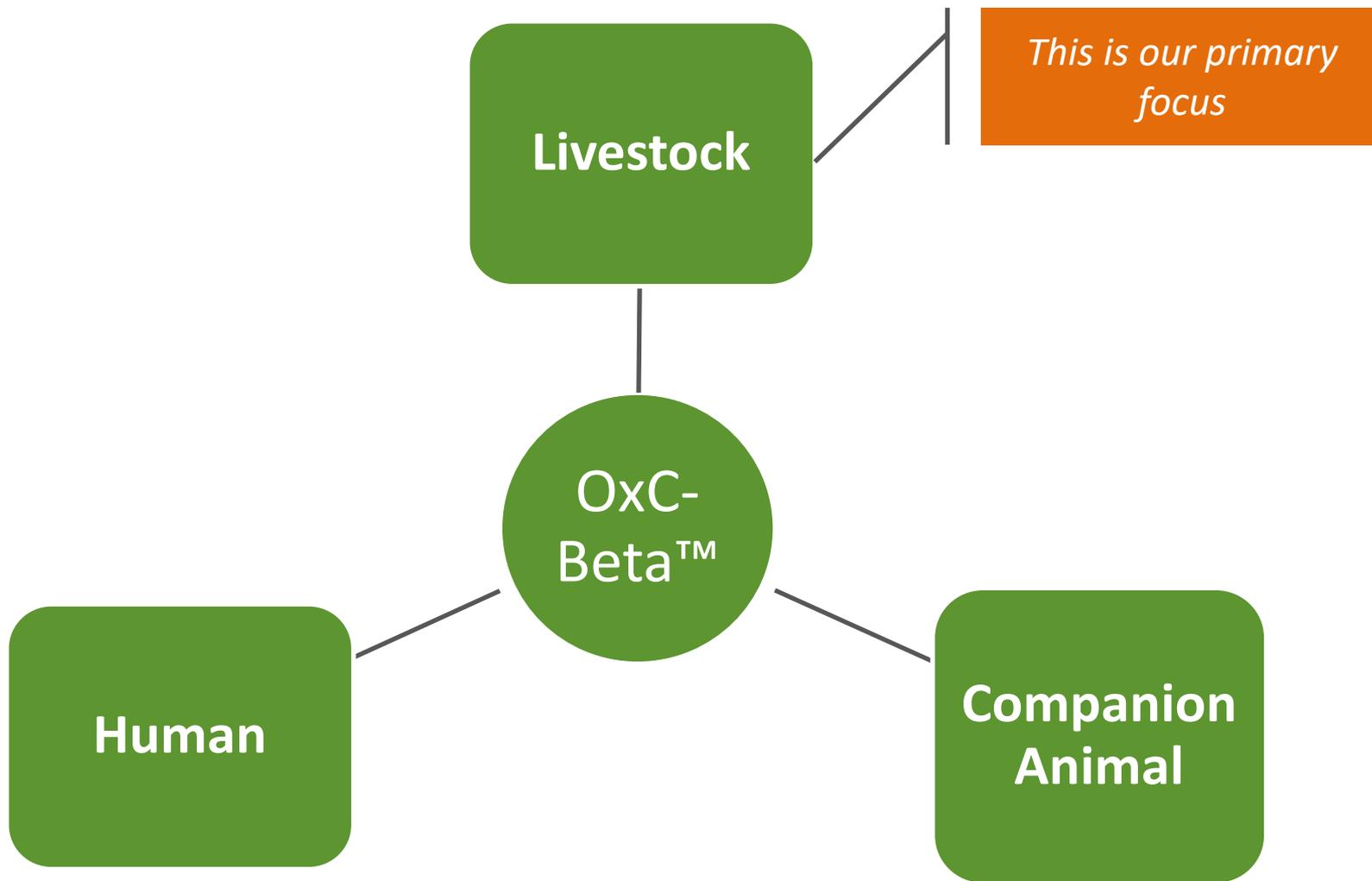
Except as required by law, Avivagen Inc. assumes no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those reflected in the forward-looking statements.

This presentation contains information about the markets in which Avivagen operations which has been obtained from third parties, as indicated throughout. Although Avivagen believes such information to be reasonable, Avivagen has not independently verified such information and does not represent as to its accuracy.

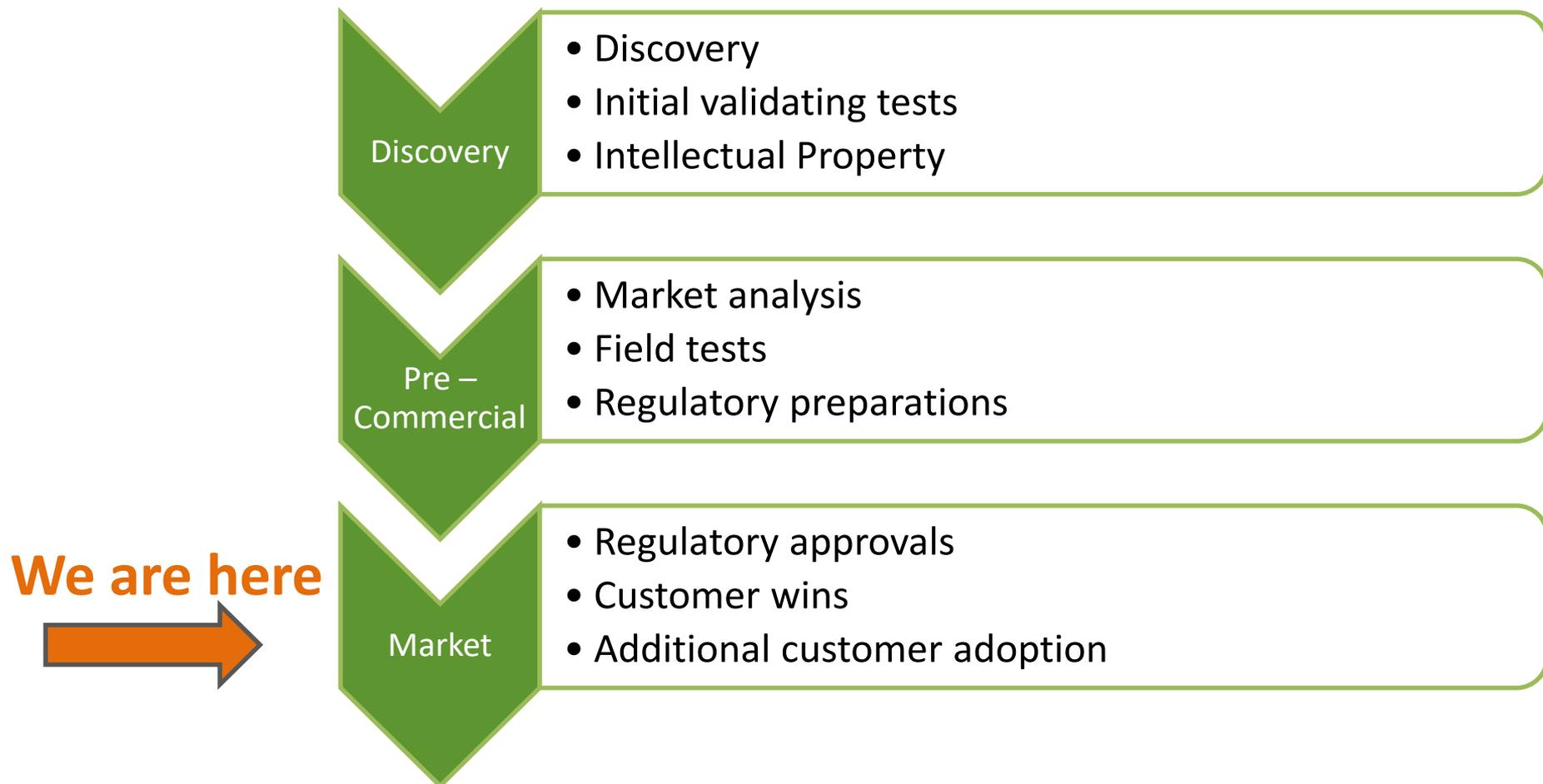
*THIS DOCUMENT DOES NOT CONSTITUTE AN OFFER TO SELL, AN INVITATION TO INDUCE AN OFFER, OR A SOLICITATION OF AN OFFER TO ACQUIRE, THE SHARES OF THE CORPORATION IN ANY JURISDICTION.*

## Avivagen discovered and owns OxC-beta™





# OUR PATH TO MARKET



# WIND AT OUR BACK

## LIVESTOCK FEED SALES

### THEN

(May 2017)

- UNAHC0 INC.: 150 kg/month
- One customer (UNAHC0 Philippines)



### NOW

(May 2018)

- UNAHC0 INC.: 800+ kg/month
- New Customers/jurisdictions

## COMPANION ANIMAL

- No Vivamune Sales  Relaunched VIVAMUNE with Cesar Millan
- No Distribution Deal  First distribution deal with PACC PETS
- No International Sales  First international sales in Taiwan

# OxC-Beta™ Livestock – the Market

# OUR LEAD MARKET

Primary Focus : **The global animal feed market**

**OxC-Beta™** is an **antibiotic-free** alternative that promotes health and sustains strong animal growth, providing better yields to producers and improving quality

**Why Now? The wind is at our back**

- Growing customer adoption - proven
- New territories/new approvals - underway
- Lots of new business discussions - underway

- Jan 1, 2006: EU-wide ban on the use of antibiotics as growth promoters in animal feed enters into effect.
- The first ban on farm use of antibiotic growth promoters (AGPs) was enacted in 1986 in Sweden.
  - Studies from several decades ago established that nontherapeutic use of antibiotics selects for resistance, resistance in humans is determined by the same mechanism as in animals, and resistance genes can disseminate via the food chain into the intestinal flora of humans.
  - Farm use of AGPs increases selection pressure and fosters the dissemination of resistance.
  - A major goal of the European ban on AGPs is to reduce antibiotic resistance traits in the microbial flora of farm animals
- June 2017: The EU Commission confirms the EU-wide ban on the use of zinc oxide at medicinal levels in piglet feed; states have up to five years to phase it out.

## United States

- Dec 2013: The FDA releases a major new policy to phase out the indiscriminate use of antibiotics in cows, pigs and chickens raised for meat.
- Jan 2017: The first FDA rules regarding the use of antibiotics in animal feed go into effect. The new policies place an outright ban on the use of any antibiotics considered “medically important” to help animals gain weight.

## China

- Nov 2016: Chinese Ministry of Agriculture banned the use of the antibiotic Colistin as a feed additive for animals.

## PROBLEM:

- **Antibiotic resistance** is an important, global, human health concern
- Many **food producers depend on in-feed antibiotics** to reliably prevent disease and boost growth in livestock
- Governments are taking action to reduce/ban antibiotics as growth promoters
- Major restaurant chains are mandating antibiotic-free foods
- Antibiotics are cheap!

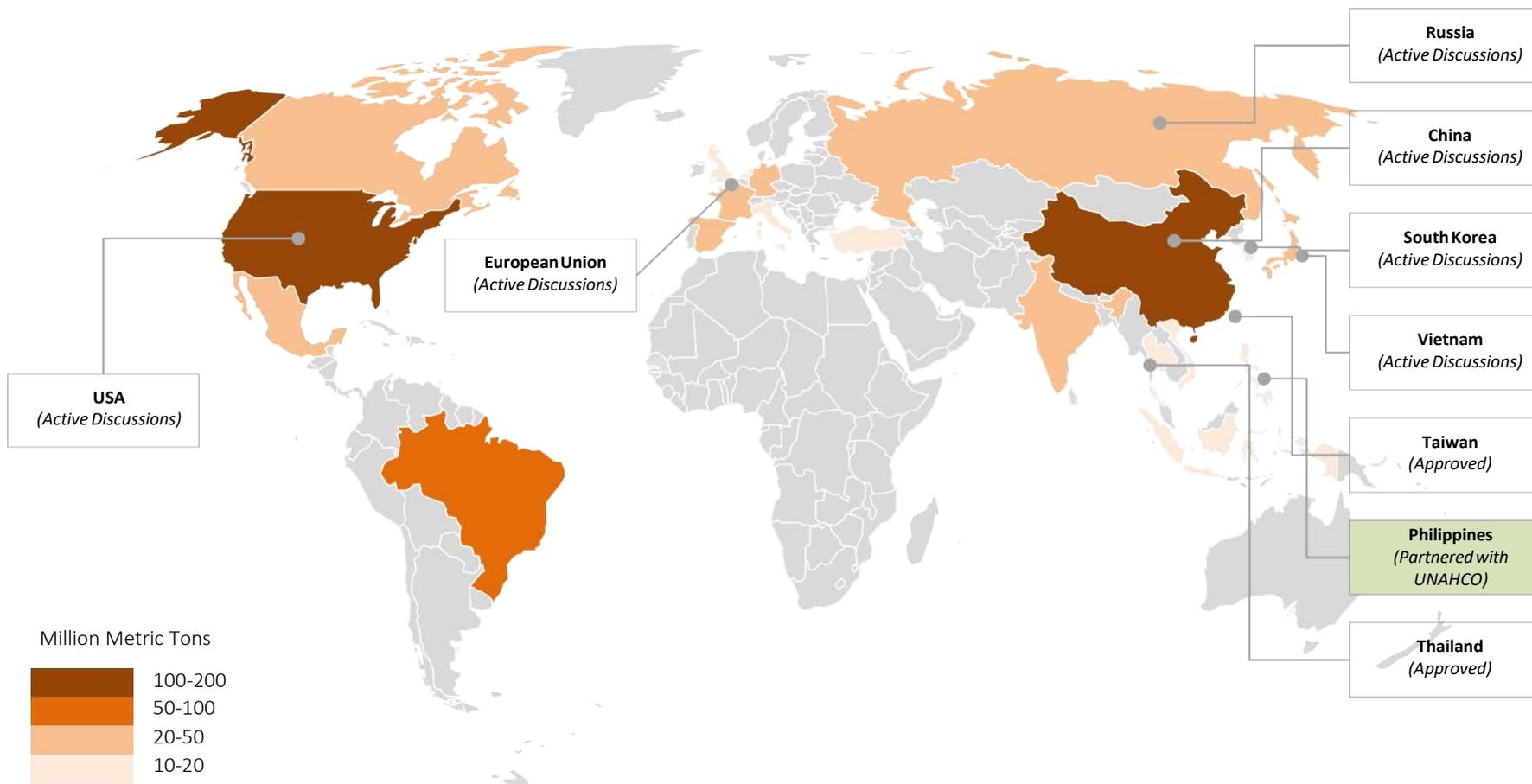
## SOLUTION: OxC-beta™ Livestock

- **Avivagen offers a unique, validated technology for this problem**
- **OxC-Beta™ is proven**
- **OxC-Beta™ is cost-effective**
- **OxC-Beta™ does NOT contribute to the development of "Antibiotic Resistance"**

- ✓ **First-In-Class Technology and Product**
  - Innovative replacement to outdated technologies and generic antibiotic products
  - Out competes new alternatives
- ✓ **Proven Modes of Action (Non-Antibiotic)**
  - Published in peer-reviewed scientific literature
- ✓ **Consistent Efficacy**
  - Supported by results of 26+ trials
- ✓ **Economically Competitive**
  - Our use case is cost competitive relative to the cost of antibiotics and other alternatives
- ✓ **Utility Across Multiple Species**
  - Innate immunity is found across all animal species
- ✓ **Excellent Handling Properties**
  - Remains active during feed production, stable long-term storage
- ✓ **Extensive IP Protection With Long Life Into the Late 2020s and Mid 2030s**
  - High value for potential commercialization/distribution partners
  - Strong barriers to entry

# MARKET OPPORTUNITY

With 1 billion tonnes sold per year, the feed market is a multi-billion dollar global opportunity



## APPROVED MARKETS:

- ✓ Philippines
- ✓ Taiwan
- ✓ Thailand (recently renewed)

## IN PROCESS:

- China
- United States
  - GRAS Strategy
- South Korea
- Vietnam
- New Zealand
  - GRAS Strategy

- **UNAHCO – a growing relationship:**
  - Met with senior management (March/2018)
    - Expressed tremendous satisfaction with OxC-beta product
  - Growing relationship:
    - Initial order of 175 kg to get a feel for the product
    - Another single order of 175 kg followed for expanding application
    - UNAHCO then moved to 175 kg/month
    - Expanded to 400 kg/month
    - Current usage now at 800 kg/month
    - Expectations to grow even further
  - UNAHCO has given permission for Avivagen to sell OxC-beta to their competitors within the Philippines
    - This will drive even more growth
  - “Halo Effect” of UNAHCO’s endorsement and growing use of OxC-beta attracting new and growing interest in Asia.

## GROWTH PLANS

- We plan to follow the UNAHCO adoption model in other countries
- Strategy for ASIA:
  - Recently hired new sales and regulatory consultant Jaruan Sanping in Thailand.
    - Ms. Sanping has a strong working relationship with **BIS Group of Companies**, one of Thailand's top animal feed suppliers operating throughout South East Asia, including Thailand, Cambodia, Myanmar, Vietnam, China among others.
    - BIS, through one of its distributors, has already conducted a trial at one of its customers' farms using OxC-beta, with positive results.

# TARGET CUSTOMER TYPE

- CP GROUP  
(China)
- CARGILL  
(United States)
- ROYAL AGRIFIRM GROUP  
(The Netherlands)
- NEW HOPE LIUHE  
(China)
- COFCO  
(China)
- PURINA ANIMAL NUTRITION  
(United States)
- WEN'S FOOD GROUP  
(China)
- TYSON FOODS  
(United States)

# Vivamune – the Companion Animal Market

# COMPANION ANIMALS

**WE WANT  
OUR DOGS  
TO LIVE  
HEALTHY**



The advertisement features a Golden Retriever and a West Highland White Terrier on the left. To their right is a bag of Vivamune chews, which is white with green and yellow accents. The bag has a logo of a dog in a circle and text that reads: "FOR ALL BREEDS & AGES", "VIVAMUNE", "Scientifically formulated with OxC-beta<sup>®</sup> Complex to target", "JOINTS, SKIN & DIGESTIVE HEALTH", "Recommended by Cesar Milan", and "60 TASTY CHEWS". In front of the bag are several loose, yellow, rectangular chews.

# VIVAMUNE RELAUNCH WITH CESAR MILLAN

- **AVIVAGEN** relaunched its VIVAMUNE line of companion animal supplements
- Endorsed by **CESAR MILLAN**
  - World-renowned dog behaviorist, best-selling author, and star of Nat Geo WILD's "Dog Whisperer with Cesar Millan" and "Dog Nation."
- The endorsement supports the promotion of Vivamune Health Chews for companion animals, with Amazon Prime (US) as Avivagen's supply chain partner.
  - First Vivamune sponsored articles appeared on Cesar Millan's DogNation.com in January 2018
  - The articles focus on lifestyle factors to promote health
- All being supported by social media networking, promotion and advertising, both in house and with the assistance of CWI (Cesar's Way), combined with advertising in email newsletters and seeking additional opportunities through social media.

# CESAR MILLAN



**Vivamune Health Chews**

April 6 at 11:50am · 🌐



"It's important to treat seasonal allergies right away so your dog doesn't itch until he scratches and causes more problems. I choose Vivamune to help keep my pack's immune system healthy and to help with avoiding seasonal allergies to weeds, molds, pollens, and dust mites. Vivamune doesn't suppress their immune systems, it helps to balance it. And that's key to a healthy happy dog." - Cesar Millan





- U.S. DISTRIBUTION AGREEMENT:
  - Entered into a two year distribution agreement with **PACC Pets**
  - The agreement is for the United States only
  - Non- exclusive, except for the state of Florida.
  - PACC Pets is also a global distributor with distribution connections in Latin America, Europe, the Middle East and Asia.
- ASIA
  - Recorded first Vivamune sale in Taiwan in April, 2018.
- GLOBAL PET EXPO
  - Attended Global Pet Expo in Orlando, Fla. from March 21-23, 2018, generating positive interest from new potential distributors. Vivamune planning on attending more events such as these throughout 2018.

<b>Tickers / Exchanges</b>	<b>VIV - TSXV, CHEXF - OTC PINK</b>
<b>Share Price (May, 2018)</b>	<b>\$0.85</b>
<b>Market Cap.</b>	<b>\$28.22 Million</b>
<b>52 Week High - Low</b>	<b>\$0.85-\$2.15</b>
<b>Shares Outstanding (Basic)</b>	<b>33.2 Million</b>
<b>Average Daily Volume (Last 12 Months)</b>	<b>46,800 Shares</b>
<b>Share Ownership</b>	<b>Insiders: &gt;5% Institutions: ~20% Float: ~70%</b>
<b>Debt</b>	<b>\$1 Million</b>

# EXPERIENCED BOARD



**Kym Anthony, Independent Chair & Interim CEO**

*Capital Markets, Agriculture, Life Sciences  
(Past Chairman of ProMetic Life Sci. & IDA)*



**Paul Mesburis, Independent Audit Committee Chair**

*Capital Markets & Life Sciences  
(Chair of the Audit & Risk Committee of ProMetic Life Sciences)*



**Jeffrey Kraws, Independent**

*Life Sciences & Capital Markets  
Former Top Ranked Analyst for Pharmaceutical Stocks  
(CEO & Co-Founder of Crystal Research)*



**Graham Burton, Management Scientific Co-Founder, NRC Chemist**



**Aubrey Dan, Independent**

*Canadian businessman, philanthropist and Tony-Award® winning producer (MEMPHIS) as well as the Principal of the Dancap Family Investment Office (dancap.ca).*

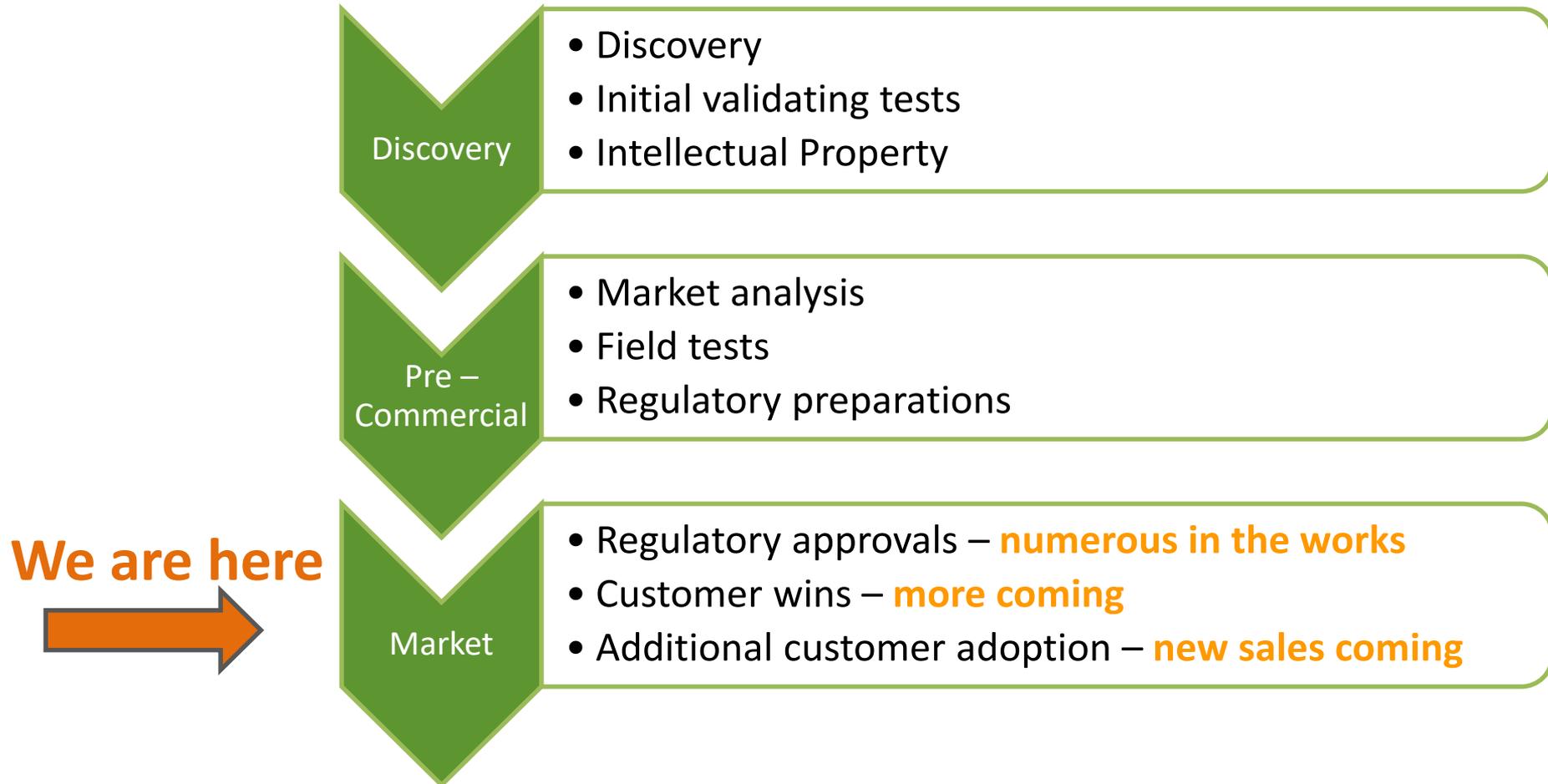


**David Hankinson, Independent**

*Former Pharma CEO  
(Solvay Pharma Inc.)*

# LOOKING AHEAD

## FOCUS ON GROWTH THROUGH EXECUTION





[www.avivagen.com](http://www.avivagen.com)

Contact:

**Kym Anthony**

*Chairman and Interim CEO*

**[k.anthony@avivagen.com](mailto:k.anthony@avivagen.com)**

**THANK YOU**



# Appendix



# TRIAL RESULTS

Location	Species	Trial Type	Results & Implications
China	Dairy Cattle	<b>Field Study (Commercial-Site)</b>	<b>Result:</b> ↓ bacteria and somatic cell levels and ↑ protein content of milk. <b>Implication:</b> First trial to demonstrate effects in an adult ruminant, supports product application in high-value dairy feed and highlights potential for use in beef cattle.
China	Pigs (Gestating-Lactating Sows)	<b>Field Study (Commercial-Site)</b>	<b>Result:</b> Improved the health and productivity of sows and nursing piglets. <b>Implication:</b> Supports the use of OxC-beta in sow feed, a new product application.
Philippines	Pigs (Starters)	<b>Field Study (Research Farm)</b>	<b>Result:</b> Improved gut health and ↓ E. coli level in young (starter) piglets. <b>Implication:</b> Scientifically valid data linking product mode of action (improved gut health and immune priming) to benefits on growth performance. Key for product marketing to sophisticated producers.
Philippines	Pigs (Starter-Grower)	<b>Field Study (Research Farm)</b>	<b>Result:</b> Improved gut health and ↓ E. coli level in starter and grower pigs. <b>Implication:</b> Scientifically valid data linking product mode of action (improved gut health) to benefits on growth performance over the starter and grower periods. Key for product marketing to sophisticated producers.
Canada	Mice	<b>R&amp;D Study (Mode of Action)</b>	<b>Result:</b> Reduced level of several inflammatory mediators in the blood. <b>Implication:</b> Adds to the body of scientific evidence supporting product ability to reduce/limit inflammation. This information contributes significantly to future product application and development plans.

## OxC-beta™ LIVESTOCK SELECT RESULTS

**Broiler Poultry – #1 global feed market (295 million tons/year)**

- **Daily weight gain** improved by up to 12%
- **Feed conversion** improved by up to 4%
- **Significant protection against enteric disease** (Necrotic Enteritis)

**Swine – #2 global feed market (254 million tons/year)**

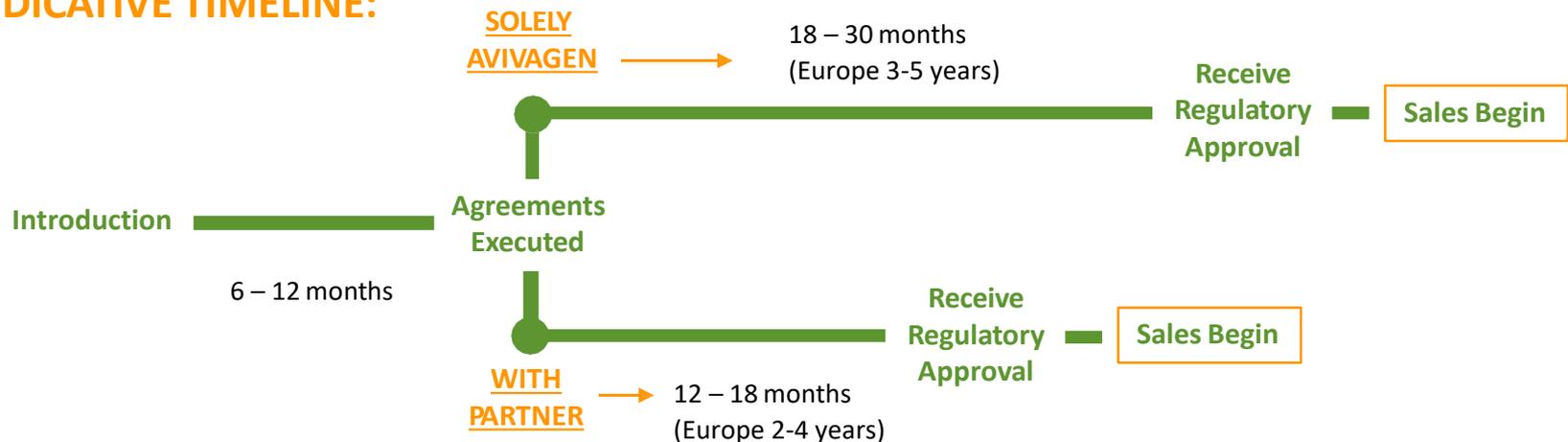
- **Daily weight gain** improved by up to 13% - 20%
- **Feed conversion** improved by up to 11%
- **Protection** from post-wean diarrhea (Enterotoxigenic Escherichia coli)

OxC-beta™ Livestock provides **consistent benefits to animal health and producer economics.**

# PATH TO SALES

- Typically, it takes 6 – 12 months from introduction to a signed agreement with a partner
- From that point, timeline to sales depends on:
  - Deal structure (eg. JV, licensing, partnership or royalty agreement)
  - Strategy (eg. Avivagen solely or with partner undertaking the regulatory approval process)
  - The regulatory process within each country
- Completing the regulatory approval process with a partner has key advantages, including:
  - Understanding the best approach within the local market
  - Shorter time to receive approval
  - Potential for the partner to fund all or some of the regulatory process costs

## INDICATIVE TIMELINE:



# ILLUSTRATIVE GLOBAL OPPORTUNITY

*Capturing 10% of the global feed market represents annual gross profit potential of US\$120 million to Avivagen*

		<u>Currently Deployed Market</u>					
		Global	Philippines	Thailand	China	USA	Europe
Feed Market <sup>(1)</sup>	M Tonnes	1,000	12	17	183	172	153
OxC-Beta 10% Premix <sup>(2)</sup>	Tonnes	40,000	495	676	7,308	6,898	6,120
Gross Profit Potential (Assuming US\$30,000/tonne)	US\$M	1,200	15	20	219	207	184
Avivagen Gross Profit (Assuming 10% Market Share)	US\$M	120	1.5	2.0	22	21	18

- The nearest-term catalyst is entering the Thailand market which, when combined with the Philippines, will cover Avivagen’s burn rate
- Securing a partnership in the USA would provide access to approximately 65 additional countries

(1) Source: Alltech 2015 Global Feed Survey.

(2) Based on 40 Tonnes of OxC-beta™ (10% Premix) per every Million Tonnes of Feed.

# BACKDROP

- Antibiotics are among the most powerful scientific discoveries ever made, saving millions of lives every year
- However, antibiotics are becoming ineffective with the **rise of antibiotic or antimicrobial resistance**
- Each year, in the U.S. alone, the CDC says that **resistant bacteria** cause:



2 million infections  
23,000 deaths  
Costs of \$20 billion  
8 million hospital days



- There are more resistant bacteria infections per year than cancer diagnoses
- It is a global, real and growing problem

# CAPITAL MARKETS PAYING ATTENTION

- Americans continue to spend freely on pet drugs, insurance, and supplies for their animal companions:
  - 2016**                      **\$66.75 Billion**
  - 2017**                      **\$69.51 Billion**
  - 2018 Est.**                **\$72.13 Billion**
- As a result, related stocks have been **outperforming** the broader market by roughly **20% vs. the S&P 500** over the last 3 years. Farm animal equities have been even stronger, **up 35%** over the general market index.<sup>1</sup>
- Livestock growth is largely attributable to increasing global demand for meat and dairy products, while the strong economy (encouraging more pet adoptions and loosening up wallets of people who already have one) and millennials (putting off having kids but making room for a dog or cat) are the main drivers for the companion animal health run-up.<sup>2</sup>

<sup>1,2</sup> Sources: Bloomberg and Capital IQ