One Health, One Purpose:
Elanco’s Antibiotic Stewardship Progress Report
Today’s Landscape

1 in 3
Get the wrong nutrition

60%
Increase in demand

20%
Lost to disease

1.6 planets
Overusing natural resources

Health and Nutrition Challenges
Growing Population
20% Lost to Disease
Environmental Pressure

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8 Point Plan Recap

Act with responsibility globally.

Cease marketing of growth promotion uses for shared-class antibiotics by the end of 2016.

Help customers eliminate continuous use of shared-class antibiotics for therapy purposes by providing an alternative.

Eliminate over-the-counter sales of shared-class antibiotics where oversight exists.

Eliminate concurrent use of shared-class antibiotics to treat the same disease.

Support veterinary oversight, including helping build infrastructure globally.

Develop new animal-only antibiotics.

Create alternatives. Invest in non-antibiotic solutions where there are few, or no, alternatives to shared-class antibiotics.
Responsible Use

- Reached more than 10,000 producers and vets globally to improve responsible use of antibiotics

- Completed submission of 67 labels for 5 shared-class molecules to move from over-the-counter use to be under the oversight of a veterinarian, where infrastructure exists.
  - Where veterinarian oversight is not available, we are educating farmers on responsible use and administration of antibiotics

- Convening industry leaders to build veterinary training and capacity where gaps exist

- Delivering health monitoring tracking data to help producers make informed decisions, reduce need for antibiotics
Reduce Shared-Class Antibiotics

- Stopped all marketing of growth promotion use of shared-class antibiotics globally
- Completing 75 label change submissions to remove growth promotion claims around the world
- An additional 18 submissions in Latin American will be complete by 2017
- Removing Tylan from Taiwan market
New Alternatives

Vaccines
- AviPro® (Product Line)

Enzymes
- Hemicell® HT
- Hemicell® XT

Protein
- Imrestor™

Animal-Only
- Inteprity™
- Kavault™
Advancing Science

Target Areas

<table>
<thead>
<tr>
<th>Species</th>
<th>Target Diseases</th>
<th>2016 New Approvals</th>
<th>Pipeline Entry</th>
<th>Ongoing Assessment</th>
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<td>Beef</td>
<td>Bovine Respiratory Disease</td>
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<td>Beef</td>
<td>Liver Abscess</td>
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<td>Coccidiosis</td>
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<tr>
<td>Poultry</td>
<td>Necrotic Enteritis</td>
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<tr>
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<td>Porcine Respiratory Disease Complex</td>
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</tbody>
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Invested nearly 90 percent of our annual food animal research budget

- Identified nearly 50 candidates
- 8 new candidates already entering Elanco’s pipeline
- 21 additional candidates completing proof-of-concept studies over the next year
By 2020, we aim to deliver a total of 25 viable antibiotic alternative development projects.

By 2020, we aim to provide solutions addressing five disease challenges in a fundamentally new way.

Elanco Alternatives to Animal Antibiotics Grand Challenge:

- $2 million in support
  - liver abscesses in beef cattle, necrotic enteritis and coccidiosis in poultry, and lawsonia and strep suis in pigs.
Continued Innovation

Prevention 360

Creating value by aggregating information, interventions and innovation

Nutritional Health

Building nutritional health capability

- improve gastrointestinal health and microbiome
- focus on disease prevention using non-medicated feed additives such as enzymes, prebiotics and probiotics
- Anticipate delivering 2 new products to customers annually between 2017 and 2020
Greater Collaboration: One Health Summit

Convene 200 global animal protein leaders, including more than 50 CEOs

Address critical issues:
- Increasing global veterinary training and capacity
- Enhancing metrics and monitoring
- Incentivizing innovation
Solutions

must optimize the health of all

versus maximizing the health of one.
One Year. One Purpose. One Health.

Participation in the White House Summit on Antibiotic Stewardship

- Exceeding Requirements, Focusing on Global Stewardship
- Convening industry leaders to create standards
- Pioneering new research for difficult diseases
- 8 new candidates entering Elanco’s pipeline
- Diversifying innovation

Creating value, leading change
Open Invitation

Elanco has committed to investing $2 million to fund solutions presented through a partnership with InnoCentive, which gives Elanco access to a network of 375,000 problem solvers.

These “solvers” will look at five challenging diseases that typically require shared use antibiotics:

- liver abscesses in beef cattle
- necrotic enteritis and coccidiosis in poultry
- lawsonia and strep suis in pigs.