



## **Jaguar Animal Health Announces Additional Topline Results from Study of Second-Generation Formulation of Neonorm Calf Conducted in Association with Cornell University College of Veterinary Medicine**

September 1, 2016

SAN FRANCISCO--(BUSINESS WIRE)--Sep. 1, 2016-- Jaguar Animal Health, Inc. (NASDAQ:JAGX) ("Jaguar" or the "Company"), an animal health company focused on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses, announced additional topline results today from its study conducted in conjunction with researchers from Cornell University College of Veterinary Medicine ("Cornell") to evaluate the efficacy of the prophylactic use of a second-generation, powder formulation of Neonorm™ Calf, administered in liquid, on naturally occurring diarrhea and dehydration in preweaned dairy calves.

Neonorm™ Calf, one of Jaguar's lead non-prescription products, has been formulated and clinically tested to help proactively retain fluid in dairy calves and reduce the severity of diarrhea—aiding the animals in avoiding debilitating, dangerous levels of dehydration associated with scours. The powder form of the product allows for ease of administration for entire herd management.

This double-blind, randomized study involved 40 newborn Holstein bull calves and compared the prophylactic use of Neonorm™ against a placebo. Treatment administration was performed twice daily for 14 days starting on the first feeding after colostrum administration. The calves were kept for an additional 10 days after the final treatment administration for clinical observation and sample collection. Calves were housed in individual pens and feeding was restricted to saleable whole milk. Data regarding fecal dry matter were used to measure water loss due to secretory diarrhea.

The study results show that calves under prophylactic administration of Neonorm™ had significantly lower water content in fecal samples at multiple measurement points, lower incidence of diarrhea, and had fewer fluid therapy interventions.

Fecal scoring, which was conducted daily during the study period, indicated a significantly lower incidence of diarrhea among Neonorm™-treated calves on most treatment days than among calves in the placebo group. The study also assessed the incidence of diarrhea from days 1 to 25 of life. Calves in the Neonorm™-treated group experienced a highly significant reduction in the incidence of diarrhea during this period compared to those in the placebo group.

Dehydration was assessed twice daily for all calves in the study. Results showed that severe dehydration requiring the administration of intravenous ("IV") fluid therapy was reduced by approximately 50% in the Neonorm™-treated calves. Moreover, overall rescue therapy, requiring either oral or IV fluid administration, for both severe and moderate dehydration, was significantly reduced in the Neonorm™-treated animals.

The study results complement the results of a prior study, also conducted by Jaguar in association with Cornell, that evaluated the effect of Neonorm™ on diarrhea severity and consistency in newborn Holstein bull calves experiencing diarrhea induced by enterotoxigenic *Escherichia coli* (*E. coli*). The results of this earlier study were published in the official journal of the American Dairy Science Association, *Journal of Dairy Science*, in 2015, and the Cornell team hopes to publish the full results of the recently-completed study as well.

"The results appear to support the potential prophylactic benefits of an easy-to-administer powder formulation of Neonorm™ on reducing the incidence and severity of diarrhea and associated fluid loss, herd-wide, in calves," commented Dr. Andre Gustavo Teixeira of Cornell, the principal investigator of the recently completed study.

Lisa Conte, Jaguar's president and CEO, stated, "We are quite pleased by the additional findings from this study. The positive prophylactic effect of the powder formulation of Neonorm™ in calves supports and underscores the prophylaxis data generated by the recently completed piglet studies of the powder formulation of Neonorm™ conducted in China by Chinese investigators. As the most common disease in newborn pigs<sup>1</sup>, diarrhea has a significant impact on the global swine market as well as food security."

As Jaguar announced this past July, the Company has entered into negotiations for a potential exclusive distribution relationship for Neonorm™ for dairy cattle and pigs in the Chinese marketplace with the China-based business entity that was involved in conducting the piglet studies.

### **About Neonorm™**

Neonorm™ is a standardized botanical extract derived from the *Croton lechleri* tree, which is sustainably harvested. Neonorm™ Calf and Neonorm™ Foal are the Company's lead non-prescription products. Jaguar intends to develop species-specific formulations of Neonorm™ in six additional target

species.

### **About Jaguar Animal Health, Inc.**

Jaguar Animal Health, Inc. is an animal health company focused on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses. Canalevia™ is Jaguar's lead prescription drug product candidate, intended for the treatment of various forms of diarrhea in dogs. SB-300 is Jaguar's prescription drug product candidate for the treatment of gastrointestinal ulcers in horses. Canalevia™ and SB-300 contain ingredients isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. Neonorm™ Calf and Neonorm™ Foal are the Company's lead non-prescription products. Neonorm™ is a standardized botanical extract derived from the *Croton lechleri* tree. Canalevia™ and Neonorm™ are distinct products that act at the same last step in a physiological pathway generally present in mammals. Jaguar has nine active investigational new animal drug applications, or INADs, filed with the FDA and intends to develop species-specific formulations of Neonorm™ in six additional target species, formulations of SB-300 in horses, and Canalevia™ for cats and dogs.

For more information, please visit [www.jaguaranimalhealth.com](http://www.jaguaranimalhealth.com).

### **Forward-Looking Statements**

Certain statements in this press release constitute "forward-looking statements." These include statements regarding the potential prophylactic benefits of a powder formulation of Neonorm™ on reducing the incidence and severity of diarrhea and associated fluid loss, herd-wide, in calves, a potential exclusive distribution relationship for dairy cattle and pigs in the Chinese marketplace between Jaguar and the China-based business entity involved in conducting the piglet studies, the Company's intention to develop formulations of SB-300 in horses and species-specific formulations of Neonorm™ in additional target species, and the Company's plan to develop formulations of Canalevia™ for cats and dogs. 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 release are only predictions. Jaguar has based these forward-looking statements largely on its current expectations and projections about future events. These forward-looking statements speak only as of the date of this release 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 Jaguar's control. Except as required by applicable law, Jaguar does 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.

<sup>1</sup>Diarrhoea or Scour. Retrieved July 24, 2016, from <http://www.thepigsite.com/pighealth/article/276/diarrhoea-or-scour/>.

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