Study Evaluating Effect of Jaguar Animal Health's Neonorm on Diarrhea in Newborn Dairy Calves Published in Journal of Dairy Science

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Study Conducted at Cornell University College of Veterinary Medicine

SAN FRANCISCO--(BUSINESS WIRE)--Sep. 2, 2015-- 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, announced today the publication of a study titled "*Effect of crofelemer extract on severity and consistency of experimentally induced enterotoxigenic Escherichia coli diarrhea in newborn Holstein calves"* in the official journal of the American Dairy Science Association, *Journal of Dairy Science* —a leading peer-reviewed general dairy research journal. The study was conducted by researchers from Cornell University College of Veterinary Medicine (Cornell).

The study evaluated the effect of a standardized botanical extract derived from the *Croton lechleri* tree, the key composition of Jaguar's Neonorm ™ Calf (Neonorm ™) product, on diarrhea severity and consistency in newborn Holstein bull calves experiencing diarrhea induced by enterotoxigenic Escherichia coli (E. coli). Neonorm ™ is the Company's lead non-prescription product, which has been formulated and clinically tested to specifically address the normalization of stool formation and ion and water flow in the intestinal lumen of newborn dairy calves.

The results of the Cornell study suggest that Neonorm ™ can significantly increase the fecal dry matter of neonatal calves with experimentally-induced enterotoxigenic E. coli diarrhea. Higher fecal dry matter is an indication of less water loss and lower dehydration risk in the calf. In addition, the study also displayed a beneficial effect of the Neonorm ™ botanical extract in supporting weight gain in calves at 10 days of life. Weight gain during the preweaning period influences the lifetime productivity of dairy cattle, impacting mammary gland development, the timing of puberty, and the age at which dairy cows first produce milk.

The double-blinded, randomized clinical trial involved 60 newborn Holstein bull calves, each assigned to one of three treatment groups: a placebo group, a group treated with an enteric-coated formulation of the botanical extract in Neonorm, and a group treated with a nonenteric-coated formulation of the extract. Diarrhea was induced at the first feeding with an inoculum of the enterotoxigenic E. coli administered with a third of the recommended dose of a colostrum replacer.

"We believe the results of this study further confirm the beneficial effects of Neonorm ™ in the normalization of stool formation in newborn dairy calves, in addition to supporting weight gain in neonatal calves," stated Lisa Conte, Jaguar's president and CEO. "Based on current industry cost standards, we estimate that Neonorm ™ could save an average of approximately $110 for every dairy calf treated for watery diarrhea, or scours. These cost savings represent calf replacement and supportive care expenses. Additionally, approximately 44% of the savings is attributable to improvements in future milk production that result from Neonorm-induced weight gain. We believe that the economics paired with the effectiveness for Neonorm ™ Calf create opportunities that will drive our revenue growth in the latter half of the year."

Jaguar is also supporting work at Cornell University College of Veterinary Medicine to use Next Generation Sequencing to identify possible relationships between treatment with Neonorm ™ and the altering of intestinal microbiota profiles, and a contributing explanation for improved weight gain and lower incidence of diarrhea after treatment cessation in the animals. "This is an exciting new frontier in gut biome research. The mechanism would supplement and is potentially synergistic with the anti-secretory benefit of Neonorm ™. Recent data in humans published in the *World Journal of Gastroenterology* support this additional potential prebiotic mechanism for the chemical class of Jaguar's suite of gastrointestinal products derived from *Croton lechleri*," explained Conte.

The results of the Cornell study will be discussed by Andre Gustavo Teixeira, the study's lead author, during an informational dinner for veterinarians during the Annual Conference of the American Association of Bovine Practitioners in New Orleans in September.

About Neonorm ™ Calf

Neonorm ™ Calf is an enteric-coated tablet designed to be orally administered to preweaned dairy calves twice daily for three days. It has been formulated and clinically tested to specifically address the normalization of stool formation and ion and water flow in the intestinal lumen of newborn dairy calves. The product acts locally in the gut and is minimally absorbed systemically. It does not alter gastrointestinal motility, and, to date, has shown no significant effects on normally functioning intestinal ion channels and electrolyte or fluid transport, nor shown any side effects different from placebo. As a result, stool formation is normalized in a short period of time, weight loss is mitigated, and supportive care costs and rehydration therapies such as oral rehydration solution, or ORS, are reduced. Neonorm has not been evaluated by the FDA for use in animals.

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. Canalevia ™ is Jaguar's lead prescription drug product candidate for the treatment of various forms of watery diarrhea in dogs. Neonorm ™ Calf is the Company's lead non-prescription product. Canalevia is a canine-specific formulation of crofelemer, an active pharmaceutical ingredient isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. 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 filed nine Investigational New Animal Drug applications, or INADs, with the FDA and intends to develop species-specific formulations of Neonorm in six additional target species, and formulations of Canalevia for cats, horses and dogs.

For more information, please visit www.jaguaranimalhealth.com.

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking statements." These include statements regarding the estimated savings per treated dairy calf presenting with scours provided by Neonorm ™ Calf, the potential relationships between treatment with Neonorm ™ Calf and altering the intestinal microbiota profiles, and a contributing explanation for improved weight gain in the animals, and potential synergies with the anti-secretory benefit of Neonorm ™ Calf. 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.

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