Jaguar Animal Health Announces Positive Preliminary Topline Results of Two Chinese-sponsored Farm Studies to Evaluate the Safety and Effectiveness of Neonorm Botanical Extract in Piglets

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High resolution in treated animals versus high mortality in control piglets, 1-3 days old
Jaguar has entered into negotiations for a potential exclusive distribution relationship for pigs and dairy cattle in the Chinese marketplace with the China-based business entity involved in conducting these studies

SAN FRANCISCO, July 25, 2016 /PRNewswire/ -- 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, today announced positive topline results of two recently-completed studies to evaluate the safety and effectiveness of Neonorm ™ botanical extract ("Neonorm ™") in piglets. The studies were sponsored by a Chinese business entity and took place at pig farms in China.

The initial study, which took place from March to May of 2016, was a multi-site study, involving 433 piglets, from two age groups (1-3 days and 10-15 days), that had a history of diarrhea. The piglets were either placed in a treatment group in which they were individually treated with 10-20 mg of Neonorm ™ powder in a water formulation twice daily for three days or placed in a control group.

In the groups of piglets aged 1-3 days, 99% achieved resolution of diarrhea following Neonorm ™ treatment versus no resolution in the control group. There was a 3% mortality in the Neonorm ™ group, while the control group had 100% mortality. In the group of piglets aged 10-15 days, the rate of diarrhea resolution was 70%, versus no resolution in the control group; mortality was 30% versus 100%, respectively. Comparisons of diarrhea resolution and mortality rates between the Neonorm ™-treated group and control groups generated p-values less than 0.01.

The second study was initiated in June of this year at a farm in China that had just experienced an outbreak of Porcine Epidemic Diarrhea Virus (PEDv). Piglets at this farm were divided into three treatment groups with no control and received 8-20 mg of Neonorm ™. The 200 piglets placed in treatment group A were all suffering from diarrhea caused by PEDv. The 200 piglets in treatment group B had recently contracted PEDv, and received a lower dose of Neonorm ™. The 100 piglets in treatment group C were healthy and were treated prophylactically.

The results of the second study demonstrate a 95% cure rate among piglets in group A, who received 10-20 mg of Neonorm ™ administered over two days. The cure rate in group B among piglets that received 8-16 mg of Neonorm ™ for three days was 60%. At this farm, a mortality rate of 50% is typically seen in piglets diagnosed with PEDv. Group C was treated prophylactically with 8-16 mg of Neonorm ™ for three days and 15% developed diarrheal symptoms, which is similar to the usual frequency at this farm without prophylactic treatment.

"We are very encouraged by these preliminary results. As the most common disease in newborn pigs[1], diarrhea has a significant impact on the global swine market as well as food security," stated Lisa Conte, Jaguar's president and CEO.

Jaguar has entered into negotiations for a potential exclusive distribution relationship for pigs and dairy cattle in the Chinese marketplace with the China-based business entity that was involved in conducting these studies.

According to the U.S. Department of Agriculture's (USDA) National Veterinary Services Laboratories, PEDv's pathogenic agent is a coronavirus, and PEDv is most serious in neonatal piglets, where morbidity and mortality can be 80 to 100 percent. The coronavirus infects the cells lining the small intestine of a pig, causing porcine epidemic diarrhea (PED), a condition of severe diarrhea and dehydration. The USDA confirmed the first PED diagnosis in the United States on May 17, 2013 in Iowa.

PED can lead to significant economic loss in the swine industry because of the high morbidity and mortality that occurs in immunologically naïve neonatal piglets, according to the USDA. Vaccination and increased biosecurity needs related to PED further increase production costs[2], and, per the USDA, there is currently no effective treatment against PED other than control of secondary infections.

According to the Minnesota-based Institute for Agriculture and Trade Policy, swine production was expected to reach 723 million head in 2014 in China, where pork is still the main protein source for many consumers. In 2011, U.S. agriculture produced 110.9 million hogs, according to the American Meat Institute. Pork products constitute the second largest segment of U.S. meat and poultry production, which is in itself the largest segment of U.S. agriculture. In 2011, the U.S. exported 1.75 billion metric tons of pork and related products worth $5.32 billion, according to the American Meat Institute.

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.

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking statements." These include statements regarding a potential exclusive distribution relationship for pigs and dairy cattle in the Chinese marketplace between Jaguar and the China-based business entity involved in conducting these 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.

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

[2]Song, D., Park, B., 2012. Porcine epidemic diarrhoea virus: a comprehensive review of molecular epidemiology, diagnosis, and vaccines. Virus genes 44, 167-175.

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