



Jaguar Health Subsidiary Napo Pharmaceuticals Receives Orphan-Drug Designation for Mytesi (crofelemer) for Treatment of Short Bowel Syndrome

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Napo Appoints Veteran Pharmaceutical Sales Leader to Head National Sales

SAN FRANCISCO--(BUSINESS WIRE)--Aug. 7, 2017-- Jaguar Health, Inc. (NASDAQ:JAGX) (Jaguar), a natural-products pharmaceuticals company focused on developing and commercializing novel, sustainably derived gastrointestinal products for both human prescription use and animals on a global basis, announced today that Mytesi® (crofelemer), a product of Jaguar's wholly-owned subsidiary Napo Pharmaceuticals (Napo), has received orphan-drug designation from the U.S. Food and Drug Administration (FDA) for the treatment of short bowel syndrome (SBS).

SBS is a complex condition characterized by malabsorption of fluids and nutrients due to congenital deficiencies, association with premature birth, or surgical resection of small bowel segments. Consequently, patients suffer from symptoms such as debilitating diarrhea, malnutrition, dehydration and imbalances of fluids and salts.

Mytesi® is approved by the FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. The Orphan Drug Act (ODA) provides for granting special status to a drug or biological product to treat a rare disease or condition upon request of a sponsor. This status is referred to as orphan designation (or sometimes "orphan status"). Orphan designation qualifies the sponsor of the drug for various development incentives, including tax credits for qualified clinical testing and relief of filing fees. Additionally, the ODA provides a seven-year period of marketing exclusivity to the first sponsor who obtains marketing approval for a designated orphan drug.

In countries such as the United Arab Emirates and Saudi Arabia, SBS occurs with much higher incidence, and Napo has visited with medical centers in this region.

"With the early and extreme morbidity and mortality suffered by SBS patients, we welcome the opportunity to participate in the investigation of a novel drug to address the devastating diarrhea and dehydration caused by this lifelong disease for which there is currently no available treatment except parenteral nutrition, and help limit the suffering of patients and their family members," Dr. Mohamad Miqdady, Chief of Pediatric Gastroenterology, Hepatology & Nutrition at Sheikh Khalifa Medical City in Abu Dhabi and a medical advisor to Napo, recently stated.

Dr. Pravin Chaturvedi, Chair of Napo's Scientific Advisory Board, commented, "Crofelemer, the active pharmaceutical ingredient in Mytesi®, is a first-in-class anti-secretory agent with a novel physiological mechanism of action of regulating the functions of the chloride ion channels—which we believe may have considerable potential for managing the fluid loss and dehydration associated with chronic diarrhea that leads to devastating health implications in these pediatric patients."

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Napo has hired Pete Riojas, a 29-year pharmaceutical industry veteran, to lead Mytesi® sales as National Sales Director. Prior to joining Napo, Mr. Riojas served as a regional sales director with Sanofi, and as a national sales director with UCB Pharma. He spent nearly nine years in a sales leadership role with Boehringer Ingelheim, and 13 years in sales with Pharmacia Corporation. During his career, he has worked closely with populations living with HIV/AIDS and addressed diversity considerations in patient populations with unmet needs. Mr. Riojas graduated from the University of Texas–Pan American with a bachelor's degree in biology and a minor in chemistry, and attended the University of Houston College of Pharmacy.

"We're delighted to have identified a seasoned pharmaceutical executive of Pete's stature to lead Mytesi® sales," Lisa Conte, Jaguar's president and CEO, stated. "Pete brings a wealth of marketing, strategic planning, operations and sales management experience to the team, and I'm confident that his depth of knowledge and record of success will prove highly beneficial as we work to expand Mytesi® sales and market awareness. We plan to have six dedicated Napo sales representatives in place under Pete's leadership to address our sales guidance through Q1, 2018."

Jaguar estimates the potential U.S. market for Mytesi® to be approximately \$100 million in gross annual sales, and anticipates that Mytesi® will generate approximately \$7.0 million in revenue by April 2018 for its current, FDA-approved specialty indication. Jaguar holds global unencumbered rights to key indications for Mytesi®, and is pursuing a follow-on indication for Mytesi® in chemotherapy-induced diarrhea, an important supportive care indication for patients undergoing primary or adjuvant chemotherapy for cancer treatment. Mytesi® is in development as a second-generation anti-secretory agent for use in cholera patients; for supportive care for irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD); as well as for an orphan-drug indication for infants and children with SBS. Mytesi® has shown activity in D-IBS patients in published Phase 2 studies.

About Mytesi®

Mytesi® (crofelemer) is an antidiarrheal indicated for the symptomatic relief of noninfectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy (ART). Mytesi® is not indicated for the treatment of infectious diarrhea. Rule out infectious etiologies of diarrhea before starting Mytesi®. If infectious etiologies are not considered, there is a risk that patients with infectious etiologies will not receive the appropriate therapy and their disease may worsen. In clinical studies, the most common adverse reactions occurring at a rate greater than placebo were upper respiratory tract infection (5.7%), bronchitis (3.9%), cough (3.5%), flatulence (3.1%), and increased bilirubin (3.1%).

More information and complete Prescribing Information are available at Mytesi.com. Crofelemer, the active ingredient in Mytesi®, is a botanical (plant-based) drug extracted and purified from the red bark sap of the medicinal *Croton lechleri* tree in the Amazon rainforest. Napo has established a sustainable harvesting program for crofelemer to ensure a high degree of quality and ecological integrity.

As previously announced, the merger of Jaguar Animal Health, Inc. and Napo became effective July 31, 2017, at which point Jaguar Animal Health's name changed to Jaguar Health, Inc. and Napo began operating as a wholly-owned subsidiary of Jaguar focused on human health and the ongoing commercialization of Mytesi®.

About Jaguar Health, Inc.

Jaguar Health, Inc. is a natural-products pharmaceuticals company focused on developing and commercializing novel, sustainably derived gastrointestinal products for both human prescription use and animals on a global basis. Our wholly-owned subsidiary, Napo Pharmaceuticals, Inc., focuses on developing and commercializing proprietary human gastrointestinal pharmaceuticals for the global marketplace from plants used traditionally in rainforest areas. Our Mytesi® (crofelemer) product is approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. Mytesi® is in development for multiple possible follow-on indications, including chemotherapy-induced diarrhea; orphan-drug indications for infants and children with congenital diarrheal disorders and short bowel syndrome; supportive care for inflammatory bowel disease (IBD); irritable bowel syndrome (IBS); and as a second-generation anti-secretory agent for use in cholera patients. Canalevia™ is our lead animal prescription drug candidate, intended for treatment of various forms of diarrhea in dogs. Equilevia™ is Jaguar's non-prescription product for total gut health in equine athletes. Canalevia™ and Equilevia™ contain ingredients isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. Neonorm™ Calf and Neonorm™ Foal are Jaguar's lead non-prescription animal products. Mytesi®, Canalevia™, Equilevia™ and Neonorm™ are distinct products that act at the same last step in a physiological pathway generally present in mammals.

For more information about Jaguar, please visit jaguar.health. For more information about Napo, visit napopharma.com.

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking statements." These include statements regarding the potential of Mytesi® for managing the fluid loss and dehydration that leads to devastating health implications in SBS patients, plans to have six dedicated Napo sales representatives in place under the leadership of Mr. Riojas to address Jaguar's sales guidance through Q1, 2018, Jaguar's estimate that the potential U.S. market for Mytesi® is approximately \$100 million in gross annual sales, Jaguar's projection that Mytesi® will generate approximately \$7.0 million in revenue by April 2018, and possible follow-on indications for Mytesi®. 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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