Jaguar Health Subsidiary Napo Pharmaceuticals Establishes Scientific Advisory Boards for Planned Follow-on Indications for Mytesi, Napo's FDA-approved Human Prescription Drug

October 19, 2017

Leading Medical Oncologist and Hematologist Dr. Lee Schwartzberg Joins Mytesi Scientific Advisory Board for Cancer Therapy-Related Diarrhea (CTD)—An Area of Significant Concern for Diarrhea Management in the Era of Novel Targeted Agents Such as Recently Approved CDK 4/6 and Tyrosine Kinase Inhibitors

SAN FRANCISCO--(BUSINESS WIRE)--Oct. 19, 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 its wholly-owned subsidiary, Napo Pharmaceuticals, Inc. (Napo), has established a scientific advisory board for each potential follow-on indication currently planned for Mytesi® (crofelemer), Napo's FDA-approved, first-in-class anti-secretory human prescription drug. Additionally, Jaguar announced today that Dr. Lee Schwartzberg, MD, FACP, a nationally-recognized medical oncologist and hematologist, has joined Napo's scientific advisory board for cancer therapy-related diarrhea (CTD).

Mytesi® is approved by the FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. Napo is pursuing a follow-on indication for Mytesi® in CTD, an important supportive care indication for patients undergoing primary or adjuvant therapy for cancer treatment. Mytesi® is also in development for rare disease indications for infants and children with congenital diarrheal disorders and short bowel syndrome (SBS); for irritable bowel syndrome (IBS) (Mytesi® has demonstrated a reduction in pain in IBS-D patients in Phase 2 studies); for supportive care for inflammatory bowel disease (IBD); and as a second-generation anti-secretory agent for use in cholera patients. Mytesi® has received orphan-drug designation for SBS.

Napo has identified more than 30 physicians, pharmacists and patient advocates around the world who are recognized specialists and key opinion leaders in the planned Mytesi® follow-on indications listed above, and is conducting outreach efforts to discuss the possibility of membership in Napo's new scientific advisory boards with these individuals.

Napo has also established a scientific advisory board for HIV. This board will focus primarily on physician education and community awareness regarding the importance and availability of solutions for neglected comorbidities, such as the first-in-class anti-secretory mechanism of action of Mytesi® for its currently approved indication.

Dr. Lee Schwartzberg, MD, FACP, Joins Napo Scientific Advisory Board for CTD

Dr. Lee Schwartzberg, a nationally-recognized medical oncologist and hematologist, has joined Napo's scientific advisory board for CTD. Dr. Schwartzberg is the Executive Director of West Cancer Center in Memphis, Tennessee, and is the Medical Director and a senior partner of West Clinic. He is also a Professor of Medicine and Chief of the Division of Hematology/Oncology at the University of Tennessee Health Science Center, and serves as President/CMO for Vector Oncology, an oncology-specific site management organization/contract research organization.

"Diarrhea remains an area of concern for patients undergoing cancer treatment. In this era of novel targeted agents, epidermal growth factor receptor tyrosine kinase inhibitors (TKIs), in particular, may block natural chloride secretion regulation pathways in the normal gastrointestinal mucosa, thereby leading to secretory diarrhea," Dr. Schwartzberg commented. "Diarrhea has been reported as the most common side effect of the recently approved CDK 4/6 inhibitor abemaciclib and the pan-HER TKI neratinib, with occurrence ranging from 86% to >95% in published studies. Diarrhea in this patient population has the potential to cause dehydration, potential infections, and non-adherence to treatment. A novel anti-diarrheal like Mytesi® may hold promise for treating secretory diarrhea—and therefore also support long-term cancer treatment adherence—in this population."

Dr. Schwartzberg was the founding editor-in-chief of the journal *Community Oncology* and currently serves as the editor-in-chief of the Practice Update Oncology website. He serves on the editorial board of both the *Journal of Supportive Oncology* and *The ASCO Post*, in addition to serving as a reviewer for many prominent medical journals, including the *New England Journal of Medicine* and the *Journal of Clinical Oncology*. Dr. Schwartzberg is also a member of the board of directors for the National Comprehensive Cancer Network. His major research interests are new therapeutic approaches to breast cancer, targeted therapy and supportive care. He has published more than 200 research papers during his oncology career. Dr. Schwartzberg is board certified in internal medicine, hematology, and medical oncology, and maintains a private practice in medical oncology focusing on breast cancer.

"We are confident that our scientific advisory boards will provide expert, actionable input regarding all aspects of development, including trial design, for Mytesi® for our follow-on indications—each of which addresses a significant, global, unmet medical need—and we are extremely pleased and

honored that an oncologist and hematologist of Dr. Schwartzberg's stature has joined our scientific advisory board for CTD," Dr. Pravin Chaturvedi, chair of Napo's scientific advisory boards, stated.

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.

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 cancer therapy-related 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 planned, potential follow-on indications for Mytesi®, the potential effectiveness of Mytesi® for treating CTD, and Jaguar's and Napo's belief that its scientific advisory boards will provide expert, actionable input regarding all aspects of development, including trial design, for potential Mytesi® follow-on indications. 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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