Santhera Pharmaceuticals (USA) Inc.
25 Corporate Drive, Suite 250
Burlington, MA 01803
Phone: (781)365-1794
www.santhera.com

Progress in 2019

Dear Duchenne community,

It was great to connect with so many of you at the PPMD annual conference in Orlando in June. Our Chief Medical Officer, Kristina Nygren MD, provided an update on Santhera's work, and if you weren't able to attend the meeting you can watch the video here. Now that summer is quickly coming to an end and the school year is in full swing, we would like to provide the larger Duchenne community, including those who were not able to attend the conferences this summer, with an update on Santhera's Duchenne drug development programs and our partnership with ReveraGen.

Now with two investigational therapies in our DMD pipeline, Puldysa® (*idebenone*) and *vamorolone*, we aim to provide new treatments to virtually all people with Duchenne regardless of ambulation status or underlying dystrophin mutation. Our work with Puldysa (*idebenone*) continues as we hope to soon complete enrollment of the phase III SIDEROS clinical trial. Currently the trial is 84% enrolled and several participants have completed the 78 week randomized trial period and have chosen to participate in the open label extension where all participants receive Puldysa. We greatly appreciate the commitment of all of those participating in the SIDEROS trial and encourage any families with boys ages 10 and older who are currently taking steroids to discuss potential participation in the trial with their physicians. Further information of the ongoing SIDEROS trial can be found at http://www.siderosdmd.com/ or http://www.clinicaltrials.gov.

Additionally, we were happy to announce in June that the European Medicines Agency (EMA) has initiated their review for conditional marketing authorization of Puldysa for the treatment of respiratory dysfunction in patients with Duchenne who are not using glucocorticoid steroids. The review should take place over the course of the next year, with a decision expected in mid-2020. In the U.S., the FDA previously communicated with Santhera that they require the results of the SIDEROS trial prior to reviewing Puldysa for approval for all boys with DMD irrespective of steroid use. Results of the SIDEROS trial are expected in the second half of 2021.

In late 2018, we announced that Santhera obtained the exclusive option to license *vamorolone*, the steroid-replacement drug in a phase IIb pivotal trial by ReveraGen. In August, Santhera announced the publication by ReveraGen of study data from their phase IIa-extension study (VPB15-003) demonstrating dose-related improvement of muscle and motor function in patients treated with *vamorolone* in comparison to natural history study data (not a placebo group in the trial). The 6-month extension study showed *vamorolone* was safe and well tolerated up to the highest dose tested (6.0 mg/kg/day). ReveraGen's Vision-DMD trial is currently recruiting boys ages 4 to <7 years who have never taken steroids. To find out the eligibility requirements of the trial visit https://vision-dmd.info/2b-trial-information/ and www.clinicaltrials.gov.

We would like to take the opportunity to clarify the relationship between Santhera and ReveraGen, as this is a frequent question asked by parents. Currently, and for the next year or so, ReveraGen owns and runs the *vamorolone* program, including conducting all of the *vamorolone* clinical trials, and preparing for regulatory approval. Santhera holds an 'option' to transfer the *vamorolone* program from ReveraGen to Santhera in the future. Currently, Santhera is involved in some transitional activities, such as manufacturing considerations, regulatory guidance, and payer and medical discussions.

This fall, the U.S. Santhera team will be meeting with families at educational events in Delaware, Hawaii, Rochester, Memphis, LA, Anaheim, and San Antonio and we hope to see you at one of these events. On behalf of the Santhera team, we thank you for your continued support and we will continue to keep you updated on our activities for the remainder of the year.

Kind regards,

Thomas Meier
CEO, Santhera Pharmaceuticals

Jodi Wolff
Head Patient Advocacy – US