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Ad hoc announcement pursuant to Art. 53 LR

Santhera Announces First Half-Year 2021 Financial Results and Updates on Corporate Progress

- **Cash and cash equivalents of CHF 8.0 million (as of June 30, 2021)**
- **Net revenue CHF 4.5 million (H1-2020: CHF 7.8 million)**
- **Net result for period of CHF -20.5 million (H1-2020: CHF -31.8 million)**

Pratteln, Switzerland, October 15, 2021 – Santhera Pharmaceuticals (SIX: SANN) announces the Company's financial results for the first half-year ended June 30, 2021, and provides an update on corporate progress.

"Our achievements in the first half of 2021 have moved us significantly closer to accomplishing key goals. The highlights in the period under review were undoubtedly the positive results of the Phase 2b VISION-DMD study at 24 weeks with vamorolone compared to placebo in Duchenne muscular dystrophy, paving the way for an NDA submission in the U.S. We are equally excited about the favorable tolerability profile of vamorolone versus prednisone, potentially addressing the high medical need for steroid efficacy with a safety profile differentiated from steroids on some key clinically meaningful parameters. On the financing side, we successfully restructured the Company's balance sheet and secured adequate funding to take us to mid-2022 or beyond key upcoming milestones," said **Dario Eklund, Chief Executive Officer of Santhera**. "These successes are crucial for both patients who are in great need of a better tolerated steroid therapy suitable for chronic treatment and for Santhera as they lay the foundation for renewed future growth. We are grateful for the continued support of patients and their caregivers, health care staff and investors, which will allow us to move forward with our strategy and execute our plans and ambitions."

OPERATIONAL HIGHLIGHTS

Recent developments

- Statistically highly significant 24-week results across multiple endpoints with vamorolone in pivotal Phase 2b VISION-DMD study
- Long-term treatment data with vamorolone demonstrating maintenance of effect over 2.5 years
- Positive results with lonodelestat in Phase 1b cystic fibrosis (CF) trial
- Primary endpoint met in Phase 4 LEROS trial with Raxone® in Leber's hereditary optic neuropathy (LHON)
- Restructuring activities (announced in October 2020) completed
- Completion of 2017/22 convertible bond exchange offer and issuance of a new 2021/24 convertible bond
- Share capital increases implemented as a basis to enable additional financing to secure operations, fund prelaunch activities for vamorolone and support advancement of pipeline
- Completion of financing to provide up to CHF 42 million net of fees and expenses to fund operations and current debt obligations

Upcoming milestones

- Q4-2021: Completion of vamorolone 48-week VISION-DMD study providing additional safety data
- Q4-2021: Conclusion of Raxone PAMs (post-authorization measures)
- Q1-2022: NDA (new drug application) filing in the US for vamorolone in DMD
- Q2-2022: Regulatory submission in Europe for vamorolone in DMD

Vamorolone—nearing regulatory submission to the US FDA

In June 2021, Santhera and ReveraGen BioPharma announced positive 24-week results from the VISION-DMD study, a pivotal Phase 2b study comparing vamorolone (2 or 6 mg/kg/day) to placebo and prednisone (0.75 mg/kg/day) in the treatment of Duchenne muscular dystrophy (DMD). The results demonstrated robust efficacy as the study met its primary endpoint of superiority in change of time from supine positioning to standing (TTSTAND) velocity with vamorolone 6 mg/kg/day versus placebo (p=0.002) with a treatment difference of 0.06 rises/second [95% CI: 0.02–0.10] from baseline. Likewise, the study also demonstrated superiority of vamorolone versus placebo across multiple secondary endpoints and established the efficacy of vamorolone at 2 and 6 mg/kg/day. Vamorolone is the only steroid to have shown efficacy for two doses across a three-fold dose range, allowing physicians for the first time to tailor treatment to the individual.

Already in April 2021, Santhera and ReveraGen announced new clinical data of 2.5-year treatment outcome with vamorolone in patients with Duchenne muscular dystrophy (DMD). These Phase 2a long-term treatment data demonstrated a maintenance of treatment effect, equivalent to a delay of about two years in decline for time to stand (TTSTAND) velocity, and confirmed safety and tolerability benefits of vamorolone over the 2.5-year follow up period. In comparison to reports from clinical trials with other corticosteroids, long-term treatment with vamorolone resulted in fewer of the side effects that are typically observed with those drugs.

Based on clinical trial results, including long-term safety data up to 30 months, vamorolone at doses up to 6 mg/kg/day was generally well-tolerated. Vamorolone treatment has been shown to preserve height trajectory and had a significantly lower adverse impact on measures of bone health and behavior changes compared to prednisone.

On the basis of the positive 24-week efficacy results from the pivotal VISION-DMD study and the demonstration of long-term benefits of vamorolone, Santhera is preparing for submission of a New Drug Application (NDA) in the US in Q1-2022, for which fast track designation was granted by the FDA.

In Q4-2021, the 48-week data readout delivering supplementary safety and tolerability data for vamorolone is expected upon completion of the VISION-DMD study. During the second period of the study, where all participants receive vamorolone treatment on either of the two dose levels, additional longer-term tolerability data is captured. The 48-week data will support the submission of a marketing authorization application in Europe in Q2-2022.

In September 2021, the FDA awarded a USD 1.2 million grant to ReveraGen under their “Clinical Studies of Orphan Products Addressing Unmet Needs of Rare Diseases (R01)” grants program to initiate a clinical trial of vamorolone in adults and children with Becker muscular dystrophy (BMD), a progressive muscle wasting disease similar to DMD, but usually milder. The mechanisms of actions, which provide the basis of vamorolone’s efficacy as demonstrated in the pivotal VISION-DMD study in the more severe DMD, are hypothesized to be relevant to BMD too.

Santhera intends to commercialize vamorolone for the treatment of DMD through its own organization in the United States and main markets in Europe, and is seeking collaborations outside those regions for DMD and for additional indications worldwide. Santhera estimates the peak product sales potential for vamorolone in the indication DMD alone to be in excess of USD 500 million in the US and the largest five European countries combined.

Lonodelestat—positive results in early phase cystic fibrosis trial

In March 2021, Santhera announced positive results of a Phase 1b study with lonodelestat, a potent and selective peptide inhibitor of human neutrophil elastase (hNE) in development to treat cystic fibrosis (CF). Neutrophil elastase is an enzyme associated with tissue inflammation, leading to degradation of the lung tissue in cystic fibrosis and several other acute and chronic inflammatory conditions of the lung where neutrophils play a prominent role in the disease process. The double-blind, placebo-controlled multiple ascending dose Phase 1b study in patients with CF established a safe dose regimen and provided promising data on the safety of lonodelestat. Furthermore, the study demonstrated that lonodelestat is well tolerated at 40 mg and 80 mg daily doses and achieves the desired effect of near complete inhibition of elastase without any drug/metabolite accumulation.

The results from the safety analyses and the confirmed effect on the hNE biomarker by lonodelestat are very encouraging for further development in CF and other inflammatory lung diseases. On this basis, Santhera will now be refining the further clinical development program to advance lonodelestat for the treatment of CF and potentially for other inflammatory pulmonary conditions, whether acute or chronic.

Post-authorization measures (PAMs) with Raxone successful and nearing completion

In June 2021, Santhera announced positive topline results from its long-term Phase 4 LEROS study with Raxone (idebenone) in the treatment of LHON. The primary endpoint, the proportion of eyes with clinically relevant benefit after 12 months treatment with Raxone versus untreated patients from an external natural history control group, was met with high statistical significance (p=0.002). The efficacy data confirm and extend previous findings which demonstrated that Raxone can prevent further vision loss and promote recovery of vision in LHON patients.

The study, which was designed with guidance and approval from the European Medicines Agency (EMA), was part of a post-authorization commitment. The strong evidence of efficacy is expected to support market access in countries where this is not yet the case, allowing patients who have no therapeutic alternative to benefit from treatment with Raxone.

Santhera holds the EU marketing authorization for Raxone (idebenone) and out-licensed rights to the product outside North America and France for the treatment of LHON to Chiesi Group. Santhera is still commercializing Raxone for LHON in France in a transitional phase and, as previously communicated, is supplying the product free of charge since August 2021 following its removal from the list of reimbursed products and while reimbursement discussions are ongoing. The Company is entitled to contingent variable near- to mid-term milestone payments from Chiesi Group of up to EUR 49 million subject to the achievement of certain commercial milestones for Raxone.

Corporate restructuring completed and organization realigned to future priorities

By the end of March 2021, Santhera completed an organizational restructuring which reduced costs and prioritized the Company's resources for vamorolone as a consequence of the termination of the Puldysa® program in late 2020. The result is a lower cost base and streamlined organization, focused on bringing

vamorolone to patients. In doing so, the core team will leverage its know-how in the DMD space, regulatory experience with the EMA and FDA, strong relationships with key clinical experts and the patient community as well as its proven track record of successfully commercializing a rare disease product.

On the back of the positive VISION-DMD study results, paving the way for an NDA submission to the US FDA, the Company has defined operational and organizational measures to allow for a successful first launch of vamorolone in the US which is expected earliest at the beginning of 2023. Attraction of key talents with a focus on the US market for pre-commercialization activities will begin as soon as additional funding has become available.

Prioritization of the development pipeline

Given the resource limitations, and in parallel to the alignment of its organizational structure, Santhera has conducted a pipeline review and prioritization. Going forward, the Company will focus on its lead clinical-stage projects vamorolone in DMD and lonodelestat in CF and has decided to abandon the further development of omigapil. In parallel, Santhera is proactively pursuing collaborations with partners to assess and exploit the potential of both clinical stage compounds in other disease areas, beyond DMD and CF, as well as for its undertakings in gene therapy for congenital muscular dystrophies (CMD).

Capital restructuring and share capital increases implemented to enable adequate funding to execute strategy

In the first half-year 2021, the Company implemented various measures to strengthen the capital structure of Santhera and to secure sufficient flexibility to continue operations and advance the pipeline as anticipated.

On May 4, Santhera announced completion of the exchange offer in respect of its CHF 60 Million Convertible Bonds due 2022 (SIX: SAN17) and the issuance of CHF 30,270,375 Senior Unsecured Convertible Bonds due 2024 (SIX: SAN21). The restructuring of the 2017/22 Bonds enabled Santhera to proceed with raising additional financing and was therefore crucial to preserve the Company as a going concern until after such subsequent financing.

Santhera's shareholders gave consent to various capital increases in the first half-year 2021. At the Extraordinary General Meeting (EGM) held on March 18, the Board of Directors (BoD) proposed to shareholders the authorization and issuance of the shares for the upsized financing from a fund managed by Highbridge Capital Management, LLC, and the restructuring of its CHF 60 million Senior Unsecured Convertible Bonds. At the Annual General Meeting (AGM) held on June 22, the BoD proposed various capital increases to Santhera's shareholders to give the Company sufficient flexibility to raise additional capital to fund ongoing development activities, increase pre-commercialization activities and expand the organization in view of a US market launch of vamorolone as early as the beginning of 2023, subject to approval by the US FDA. Santhera's shareholders approved all motions by the BoD at both the EGM and the AGM, allowing the Company to proceed with its strategy and plans as foreseen.

On September 20, 2021 the Company announced a financing of up to CHF 45 million gross or CHF 42 million net of fees and expenses to provide funding through to mid-2022 past the NDA filing planned for Q1-2022. The financing comprised CHF 20 million in equity, CHF 15 million in a new 2021/24 convertible bond to be used for settlement of the CHF 15 million nominal value outstanding on the 2017/22 convertible bond maturing February 2022, together with a CHF 10 million in new senior secured exchangeable notes. A first tranche of CHF 2 million may be drawn after closing, on October 14, 2021,

subject to certain customary conditions. A further tranche of CHF 5 million may be drawn if and when the FDA supports an NDA for vamorolone in DMD in the United States upon which a USD 5 million milestone payment to licensor ReveraGen becomes due. The remaining tranche of CHF 3 million is available subject to investor consent. The maturity of the term loan will be May 2024.

However, considering the Company's current planned strategy for the next 12 months, additional funds will be required to fund operations and material uncertainties remain as to the Company's ability to continue as a going concern until June 30, 2022.

KEY FINANCIALS AS OF JUNE 30, 2021

- Cash and cash equivalents of CHF 8.0 million
- Net revenue CHF 4.5 million (H1-2020: CHF 7.8 million)
- Net result for period of CHF -20.5 million (H1-2020: CHF -31.8 million)

Financial liquidity as of June 30, 2021

As of June 30, 2021, the Company had cash and cash equivalents of CHF 8.0 million compared to CHF 12.4 million as of December 31, 2020. The decrease was primarily due to support of ongoing development and completion of organizational restructuring activities.

Net cash used in operating activities was CHF 18.6 million for the six months ended June 30, 2021, compared to CHF 19.8 million for the six months ended June 30, 2020.

Following financing activities, including the convertible bond 2017/22 exchange for 2021/2024 convertible bond overall net equity at June 30, 2021 increased to CHF 8.4 million from a deficit of CHF 6.4 million as at December 31, 2020.

Financial results for the six months ended June 30, 2021

For the six months ended June 30, 2021, the Company recorded a net loss of CHF 20.5 million, or CHF 0.92 per share, compared to a net loss of CHF 31.8 million or CHF 2.78 per share for the six months ended June 30, 2020.

Total revenue was CHF 4.5 million and CHF 7.8 million for the six months ended June 30, 2021, and June 30, 2020, respectively. The majority of this revenue reflects sales of Raxone for the treatment of LHON in France where Santhera continues to supply the product following the outlicensing and transfer to Chiesi Group in 2019. The decrease in revenues is mainly attributable to a CHF 2.0 million adjustment to defer revenues recorded in the first half-year 2021 due to uncertainties around pricing and reimbursement in France, as well as an agreement with the regulatory authorities in France to supply Raxone free of charge from August 2021 while reimbursement discussions are ongoing.

Development expenses were CHF 13.6 million and CHF 17.7 million for the six months ended June 30, 2021, and June 30, 2020, respectively. The decrease in expenses was primarily due to lower contract research organization expenses and other third-party clinical trial expenses following the termination of the Puldysa Phase 3 SIDEROS study, offset by increased expenses to support the development of vamorolone to the recently announced 24-week, in addition to a reduction in staff costs following organizational restructuring.

Marketing and sales expenses were CHF 2.0 million and CHF 6.8 million for the six months ended June 30, 2021 and June 30, 2020 respectively. The decrease was primarily a result of the ceasing of Puldysa activities following the termination of the program announced in October 2020. Ongoing expenses relate to pre-commercialization activities for vamorolone and meeting ongoing obligations in relation to Raxone out-licensed to Chiesi Group.

General and administrative expenses were CHF 6.3 million and CHF 7.2 million for the six months ended June 30, 2021 and June 30, 2020 respectively, the decrease was primarily related to the organization restructuring announced in October 2020.

Half-year Report

The Santhera Half-year Report 2021 is available for download on the Company's website at www.santhera.com/investors-and-media/investor-toolbox/financial-reports.

2021 Half-year Financial Information

Santhera's 2021 Half-year Report see www.santhera.com/investors-and-media/investor-toolbox/financial-reports.

Condensed consolidated income statement (reviewed, IFRS, for half-year ended June 30, in CHF thousands)	**1H-2021**	1H-2020
Net sales	**2,853**	6,133
Net sales to licensing partner	**1,639**	1,642
Revenue from contracts with customers	**4,492**	7,775
Cost of goods sold (of which amortization intangible assets: 1H-2021 -1,519 / 1H-2020 -1,519)	**-2,031**	-2,114
Development	**-13,592**	-17,688
Marketing and sales	**-2,008**	-6,766
General and administrative	**-6,307**	-7,209
Operating expenses	**-21,938**	-31,911
Operating result	**-19,477**	-25,893
Financial result	**-389**	-5,573
Income taxes	**-653**	-361
Net result	**-20,519**	-31,827
Basic and diluted loss per share (in CHF)	**-0.92**	-2.78

Condensed consolidated balance sheet (IFRS, in CHF thousands)	**June 30, 2021** **(reviewed)**	Dec 31, 2020 (audited)
Cash and cash equivalents	**7,991**	12,411
Other current assets	**3,659**	5,312
Noncurrent assets	**68,567**	70,964
Total assets	**80,217**	88,687
Equity	**8,353**	-6,354
Noncurrent liabilities	**27,210**	65,972
Current liabilities	**44,654**	29,069
Total equity and liabilities	**80,217**	88,687

Condensed consolidated cash flow statement (reviewed, IFRS, for half-year ended June 30, in CHF thousands)	**1H-2021**	1H-2020
Cash flow (used) in operating activities	**-18,607**	-19,795
Cash flow from investing activities	**-75**	1,506
Cash flow from financing activities	**14,276**	6,405
Cash and cash equivalents at January 1	**12,411**	31,358
Cash and cash equivalents at June 30	**7,991**	19,353
Net change in cash and cash equivalents	**-4,420**	-12,005

Share capital (number of shares with par value of CHF 1)	**June 30, 2021** **(reviewed)**	Dec 31, 2020 (audited)
Shares issued	**31,303,512**	19,429,696
Conditional capital for equity rights	**5,537,052**	687,052
Conditional capital for convertible rights	**6,304,703**	2,500,000
Authorized capital	**14,381,755**	2,080,709

About Santhera

Santhera Pharmaceuticals (SIX: SANN) is a Swiss specialty pharmaceutical company focused on the development and commercialization of innovative medicines for rare neuromuscular and pulmonary diseases with high unmet medical need. Santhera has an exclusive license for all indications worldwide to vamorolone, a first-in-class dissociative steroid with novel mode of action, which was investigated in a pivotal study in patients with DMD as an alternative to standard corticosteroids. The clinical stage pipeline also includes lonodelestat (POL6014) to treat cystic fibrosis (CF) and other neutrophilic pulmonary diseases as well as an exploratory gene therapy approach targeting congenital muscular dystrophies. Santhera out-licensed rights to its first approved product, Raxone® (idebenone), outside North America and France for the treatment of Leber's hereditary optic neuropathy (LHON) to Chiesi Group. For further information, please visit www.santhera.com.

Raxone® is a trademark of Santhera Pharmaceuticals.

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