SILENCE THERAPEUTICS

Silence Therapeutics

H1 2020 Results

September 14, 2020

Forward Looking Statements

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H1 2020 & Recent Highlights

Advanced proprietary pipeline programmes

- SLN360 IND approved by FDA to start Phase 1 studies
- Started dosing in SLN124 Phase 1 trial

Secured major new collaborations

- AstraZeneca
- Takeda
- Expanded partnership with Mallinckrodt

Strong balance sheet

- Projected cash runway extending beyond key data milestones for SLN360 and SLN124

Strengthened team

- Key appointments across clinical, regulatory and manufacturing
- Appointed Dr Giles Campion to Board

Increased U.S. presence

- Opened NYC office
- Nasdaq listing

Appointed Mark Rothera President and CEO

- Over 30 years of broad, global biopharma experience
- Record of strong commercial and operational leadership, including successfully growing multiple biotechnology companies
- Previously, CEO of Orchard Therapeutics, a leading publicly-traded gene therapy company, and Chief Commercial Officer of PTC Therapeutics, a publicly-traded rare disease company
- Based in NYC office

Advancing Proprietary Pipeline Programmes

SLN360: wholly owned product candidate for cardiovascular disease with high Lipoprotein(a) or Lp(a)

The Opportunity	• High Lp(a) levels* affects ~20% of the world's population • Apheresis is the only approach that can appreciably reduce Lp(a) levels, but it is invasive and burdensome
How SLN360 is Designed to Work	• Inducing RNAi-mediated degradation of LPA derived mRNA, which causes strong reduction of the LPA encoded protein Lp(a)
Potential Advantages	• Potential to offer a well tolerated, robust knockdown of Lp(a) levels with long duration of action
Phase 1 Program	• FDA approved IND to start dose escalation studies in primary and secondary prevention patients with elevated Lp(a)

*greater than 50mg/dL

SLN124: wholly owned product candidate for beta-thalassaemia and myelodysplastic syndrome (MDS)

The Opportunity	• Potential to reduce transfusion burden due to iron-overload associated ineffective erythropoiesis
How SLN124 is Designed to Work	• Reducing *TMPRSS6* gene expression to up-regulate hepcidin levels key in mediating iron overload disorders
Potential Advantages	• Potential to offer long duration of action and once monthly treatments
Designations	• US rare paediatric disease designation for β-thalassaemia, Orphan Drug Designation for MDS (US) and β-thalassaemia (EU; US)

EU: European Union; MDS: myelodysplastic syndrome; US: United States

SLN124 Phase 1 Program Overview

Phase 1: Healthy Volunteers

- Design: Phase 1 randomised, double-blind, placebo controlled, single-ascending dose study
- Population: up to 24 healthy volunteers

Phase 1b: Thalassaemia and VL/LR-MDS

- Design: Phase 1b global, randomised, single-blind, placebo-controlled single-ascending dose and multiple dose study
- Population: up to 112 adults with non-transfusion dependent thalassemia and VL/LR-MDS

MDS: myelodysplastic syndrome; VL/LR-MDS: very low- and low-risk MDS

Corporate Collaborations

High-Value Collaborations – Expanding Pipeline Opportunities

AstraZeneca

- Signed major deal to discover, develop and commercialise siRNA therapeutics for cardiovascular, renal, metabolic and respiratory diseases in March 2020
  - Upfront cash payment of $60 million and an equity investment of $20 million[1]
  - Up to $400 million in potential milestones for each target plus tiered royalties

Takeda

- Commenced technology evaluation to explore the potential of using our platform to generate siRNA molecules against a novel, undisclosed target in January 2020

Mallinckrodt

- Expanded complement pathway RNAi collaboration in July 2020
  - > Mallinckrodt exercised option to license two additional complement targets
  - > Initiated work on second target and triggered $2M milestone payment

[1] Of the $60m, $20m was paid in May 2020 and a further $40m is unconditionally payable in H1 2021.

H1 2020 Financial Highlights

Income statement (GBP '000)	H1 2020	H1 2019
Revenue	1,146	0
Research and development costs	(10,179)	(5,054)
Administrative expenses	(5,160)	(4,654)
Operating loss	(14,193)	(9,708)
Other income/expense	864	110
Tax	2,300	1,388
Loss for the period after taxation	(11,029)	(8,210)
Cash at year end	50,343*	33,515

- Loss after tax of £11.0 million (H1 2019: £8.2 million) with an increase in operating costs compared to H1 2019 driven by increasing R&D spend with both SLN360 and SLN124 being prepared for clinical testing this year
- Cash and cash equivalents and term deposits of £50.3 million at 6/30/20 (Year-end 2019 £33.5 million), the increase driven by the collaboration with AstraZeneca
- Net cash inflow from operating activities £0.8 million (H1 2019: £10.3 million outflow), again driven by the collaboration with AstraZeneca
- Entering H2 2020 in a strong financial position to maximise future growth
- *. Pro-forma cash balance is $102m (£50.3m converted at 1.23 (USD:GBP at 30 June) plus $40m due from AZ in H1 2021)

Q & A