

FOR IMMEDIATE RELEASE**Silence Therapeutics and AstraZeneca Extend
siRNA Delivery Collaboration**

London, April 21, 2010 – Silence Therapeutics plc (AIM: SLN) (“Silence” or the “Company”) announces that the Company and AstraZeneca (LSE: AZN) have agreed to a one-year extension of their ongoing small interfering RNA (siRNA) delivery collaboration. Under this collaboration, which was originally entered into in March 2008, the companies are leveraging a number of Silence’s proprietary lipid delivery and targeting technologies to develop new and enhanced delivery approaches for RNA interference (RNAi) therapeutics. Financial details of the collaboration and its extension have not been disclosed.

Under terms of the agreement, both companies retain the right to commercialize the novel delivery solutions that emerge from the collaboration. This agreement is independent of the companies’ other ongoing collaboration which is focused on developing novel RNAi therapeutics against specific disease targets exclusive to AstraZeneca.

“AstraZeneca’s desire to extend this valuable collaboration offers important validation for the progress that our companies have already been able to make, as well as the fundamental siRNA delivery expertise that Silence possesses,” stated Philip Haworth, Ph.D., chief executive officer of Silence Therapeutics. “The safe and effective delivery of RNAi therapeutics remains one of the key challenges in this emerging space and we are excited to be working hand in hand with a partner of AstraZeneca’s stature to achieve this goal.”

The challenges of systemic siRNA delivery are well documented and include numerous biological barriers that limit RNAi therapeutics’ ability to reach targets safely and effectively. Successfully solving this delivery problem and enabling siRNA molecules to safely and effectively reach various tissue sites within the body is essential to realizing the vast therapeutic potential of RNAi.

About Silence Therapeutics plc (www.silence-therapeutics.com)

Silence Therapeutics plc (AIM: SLN) is a leading global biotechnology company dedicated to the discovery, development and delivery of targeted, systemic RNA interference (RNAi) therapeutics for the treatment of serious diseases. The company possesses multiple proprietary siRNA delivery technology platforms including AtuPLEX™, a system that enables the functional delivery of siRNA molecules to targeted diseased tissues and cells, while increasing their bioavailability and intracellular uptake. A second, complementary delivery technology known as PolyTran™ uses a library of novel peptide-based biodegradable polycationic polymers for systemic siRNA administration. Additionally, the company has a platform of novel short interfering RNA (siRNA) molecules, AtuRNAi, which provide a number of advantages over conventional siRNA molecules, including increased stability against nuclease degradation. Silence’s unique RNAi assets also include structural features for a next generation of RNAi molecules and additional proprietary siRNA sequences against more than 50 highly valued oncology and other disease targets.

The company’s strong and diverse intellectual property portfolio includes exclusive licenses from the University of Massachusetts on three patent families associated with the Zamore “Design Rules,” which cover broad structural features of siRNA design for more potent next generation siRNA sequences.

Silence Therapeutics is headquartered in London, UK, with research and development operations in Berlin and Palo Alto, CA.

Forward-Looking Statements

This press release includes forward-looking statements that are subject to risks, uncertainties and other factors. These risks and uncertainties could cause actual results to differ materially from those referred to in the forward-looking statements. All forward-looking statements are based on information currently available to Silence Therapeutics and Silence Therapeutics assumes no obligation to update any such forward-looking statements.

###

For further information, please contact:

Silence Therapeutics
Phil Haworth
(650) 855-1514
p.haworth@silence-therapeutics.com

Vida Communication (on behalf of Silence)
Tim Brons (media)
(415) 675-7400
tbrons@vidacommunication.com

Nomura Code Securities
Richard Potts / Jonathan Senior
020 7776 1200

Stephanie Diaz (investors)
(415) 675-7400
sdiaz@vidacommunication.com