

**FOR IMMEDIATE RELEASE**

**Silence Therapeutics signs collaboration with miRagen Therapeutics to evaluate delivery of novel microRNA-based therapeutics**

***-- Third collaboration to investigate the potential application of Silence's proprietary RNAi delivery technologies in the development of novel microRNA-based therapeutics --***

London, UK, January 9, 2012 – [Silence Therapeutics plc](#) (AIM: SLN) (“Silence”), a leading [RNA](#) interference (RNAi) therapeutics company, announces that it has signed an agreement with miRagen Therapeutics, Inc. (“miRagen”), to assess the delivery potential of Silence’s proprietary [DBTC delivery system](#) with miRagen’s novel microRNA- (miRNA-) based therapeutics. MiRagen is a pre-clinical stage biopharmaceutical company founded to develop innovative miRNA-based therapeutics for the treatment of cardiovascular and muscle disease.

Under the terms of the agreement, miRagen will provide Silence with specific miRNA sequences, which Silence will formulate with its proprietary DBTC delivery system in order to develop multiple candidate drugs. MiRagen will undertake *in vitro* and *in vivo* studies of the candidate drugs developed under the agreement and select lead candidates for further evaluation. Financial terms of the collaboration are not disclosed.

[DBTC](#) is a proprietary [RNAi](#) delivery system developed by Silence. It is a novel lipid-based formulation that functionally delivers short interfering RNA ([siRNA](#)) to liver endothelial cells, hepatocytes and other liver cell types with high efficiency.

**[Thomas Christély](#), Chief Executive Officer of Silence Therapeutics, said:** *“We are delighted to be collaborating with miRagen. This is the third collaboration that we have recently signed to explore the use of Silence’s delivery technologies for microRNAs, and the second that utilizes our novel DBTC delivery system that specifically delivers RNAi therapeutics to the liver. Whilst we remain internally focused on the delivery of our siRNA therapies, we continue to broaden the potential value of our proprietary delivery systems by collaborating with partners. Functional delivery to target cells is widely recognized as one of the greatest challenges facing most nucleic acid therapies. Our three proprietary RNAi delivery systems, *AtuPLEX™*, *DACC* and *DBTC* deliver effective doses of RNAi to key intracellular targets in vascular endothelium, lung and liver respectively, and provide our partners with a growing range of solutions to overcome their delivery challenges.”*

**William S. Marshall, President and Chief Executive Officer of miRagen Therapeutics, said:** *“We are very pleased to have entered into this agreement with Silence Therapeutics, which gives us the opportunity to evaluate the efficacy of a promising delivery system in the context of microRNA manipulation. This is another example of miRagen’s commitment to explore the potential of cutting-edge technologies with the ultimate goal of better serving patients in need.”*

**--Ends--**

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**Notes for editors**

**About Silence Therapeutics plc ([www.silence-therapeutics.com](http://www.silence-therapeutics.com))**

Silence Therapeutics plc (AIM: SLN) is a leading biotechnology company dedicated to the discovery, development and delivery of targeted, systemic RNA interference (RNAi) therapeutics for the treatment of serious diseases. Silence offers one of the most comprehensive short interfering RNA (siRNA) therapeutic platforms available today based on a strong intellectual property portfolio and large clinical safety database. Silence's clinical siRNA product pipeline is one of the broadest in the industry. The Company possesses multiple proprietary siRNA delivery technology platforms including AtuPLEX™, DACC and DBTC. AtuPLEX enables the broad functional delivery of siRNA molecules to targeted diseased tissues and cells, while increasing their bioavailability and intracellular uptake. The DACC delivery system allows functional delivery of siRNA molecules selectively to the lung endothelium with a long duration of target mRNA and protein knock-down. The DBTC delivery system enables functional delivery of siRNA molecules selectively to liver cells including hepatocytes. Additionally, the Company has a platform of novel siRNA molecules based around its AtuRNAi chemical modification technology, which provides a number of advantages over conventional siRNA molecules. Silence's unique RNAi assets also include structural features for RNAi molecules and specific design rules for increased potency and reduced off-target effects of siRNA sequences.

The Company's lead internal drug candidate is Atu027, a liposomal formulation in clinical development for systemic cancer indications and one of the most clinically advanced RNAi therapeutic candidates in the area of oncology. Atu027 incorporates two of the Company's technologies, AtuRNAi and AtuPLEX™. Silence is currently conducting an open-label, single-centre, dose-escalation Phase I study with Atu027 in patients with advanced solid tumors involving single, as well as repeated, intravenous administration. Encouraging interim safety and pharmacokinetic data were presented at the American Society of Clinical Oncology Annual Meeting in June 2011. The study is expected to be completed in the first half of 2012.

The Company's RNAi therapeutic platform has received key validation through multiple partnerships with pharmaceutical companies including AstraZeneca, Dainippon Sumitomo, Pfizer/Quark, and Novartis/Quark. Silence is actively pursuing the establishment of additional partnerships. Silence Therapeutics has operations in both Berlin and London.

**About miRagen Therapeutics ([www.miragentherapeutics.com](http://www.miragentherapeutics.com))**

MiRagen Therapeutics, Inc., a pre-clinical stage biopharmaceutical company, was founded in 2007 to develop innovative microRNA-based therapeutics for cardiovascular and muscle disease. MicroRNAs are short, single-stranded RNA molecules encoded in the genome that regulate gene expression and play a vital role in influencing cardiovascular and muscle disease. Cardiovascular disease is the leading cause of death globally and represents an

enormous burden on global healthcare systems. MiRagen combines world recognized leadership in cardiovascular medicine with unprecedented in-house expertise in microRNA biology and chemistry. In October 2011, miRagen and Les Laboratoires Servier, a leading European pharmaceutical company, entered into a strategic alliance for the research and development of microRNA-based therapeutics in cardiovascular disease. For more information, please visit [www.miragentherapeutics.com](http://www.miragentherapeutics.com).

### **About MicroRNAs (miRNAs)**

MicroRNAs have emerged as an important class of small RNAs encoded in the genome. They act to control the expression of sets of genes and entire pathways and are thus thought of as master regulators of gene expression. Recent studies have demonstrated that microRNAs are associated with many disease processes. Because they are single molecular entities that dictate the expression of fundamental regulatory pathways, microRNAs represent potential drug targets for controlling many biologic and disease processes.

### **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.