

FOR IMMEDIATE RELEASE**Silence Therapeutics Expands RNAi Structural Modification IP Portfolio
With Issuance of New U.S. Patent**

Second Recent Patent Issuance Related to Innovative Zamore “Design Rules”

London, July 7, 2010 – Silence Therapeutics plc (AIM: SLN) (“Silence” or the “Company”) announces the issuance of United States patent 7,750,144, titled Methods and Compositions for Enhancing Efficacy and Specificity of RNA Silencing, by the United States Patent and Trademark Office (USPTO). The issued patent generally claims methods of producing double stranded (RNAi) agents having decreased off-target silencing activity through certain structural modifications. The ability to minimize the off-target effects of RNAi therapeutics is critical for controlling unwanted cellular activity and/or potential safety concerns. The issued claims not only cover minimizing off-target gene expression silencing using short interfering RNA (siRNA) but also include specific claims directed to micro RNA (miRNA).

This latest issued patent is based on the seminal research of Phillip D. Zamore, Ph.D., Howard Hughes Medical Institute Investigator, the Gretchen Stone Cook Chair of Biomedical Sciences, and Professor of Biochemistry & Molecular Pharmacology at University of Massachusetts Medical School. Silence owns exclusive licenses in the human healthcare fields to three Zamore patent families from the University of Massachusetts Medical School, where Zamore is the co-director of the RNA Therapeutics Institute. These patent families disclose various efficacy-enhancing methods and structural elements for RNAi therapeutics, informally known as the Zamore “Design Rules” and based on Dr. Zamore’s work at UMass Medical School. This is the third patent to issue among the Zamore design rule patents licensed by UMass Medical School to Silence. The Company expects additional U.S. and European patent issuances related to the Zamore portfolio in the coming months.

“This latest in a series of related patent issuances continues to highlight the significant value of the groundbreaking Zamore patent families. For the second time in the past month, we have strengthened our rapidly expanding RNAi IP position with a key patent issuance in the area of structural modification technology,” stated Philip Haworth, Ph.D., chief executive officer of Silence Therapeutics. “Whereas our last patent provided key guidance in enhancing the desired silencing activity of RNAi agents, this latest patent covers the equally valuable ability to minimize the undesired off-target silencing activity of RNAi agents.”

Silence Therapeutics is executing a proactive strategy to continue to build and strengthen a diverse and competitive intellectual property portfolio that provides the company and its partners with a strong proprietary position in the RNAi therapeutics space. The company believes that it will continue to make significant progress in these efforts throughout 2010 as it expects a number of additional valuable RNAi patents to be issued in both the United States and Europe during the year. This consistent and meaningful IP portfolio growth reinforces Silence’s belief that the company can sustain its position as a preferred partner in RNAi therapeutics. At present, Silence’s global patent portfolio contains issued patents and pending applications covering strategic areas of RNAi therapeutic development including multiple proprietary siRNA delivery technologies, potent siRNA sequences specific for high-value disease targets and key RNAi sequence and chemical modifications.

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 short interfering RNA (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 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 Medical School 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 activities in Berlin and operations in Redwood City, CA.

About UMass Medical School

The University of Massachusetts Medical School, one of the fastest growing academic health centers in the country, has built a reputation as a world-class research institution, consistently producing noteworthy advances in clinical and basic research. The Medical School attracts more than \$240 million in research funding annually, 80 percent of which comes from federal funding sources. UMMS is the academic partner of UMass Memorial Health Care, the largest health care provider in Central Massachusetts. For more information visit www.umassmed.edu.

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.

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