



PRESS RELEASE
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CALANDO RECEIVES FDA APPROVAL FOR PHASE I CLINICAL TRIAL USING A TARGETED siRNA NANOPARTICLE THERAPEUTIC

FDA approval to proceed with proprietary RONDEL™ drug delivery system and siRNA combined for first targeted, systemic delivery in oncology Phase I clinical trial

PASADENA, Calif.— April 21, 2008— Calando Pharmaceuticals, a majority owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), announced today that the U.S. Food and Drug Administration (FDA) has approved its investigational new drug application (IND) for lead anti-cancer compound, CALAA-01. The drug candidate is a targeted nanoparticle, comprised of a proprietary, non-chemically-modified siRNA against the M2 subunit of ribonucleotide reductase—a clinically-validated cancer target—formulated with Calando's proprietary RONDEL™ (RNAi/Oligonucleotide Nanoparticle Delivery) polymer delivery system. The FDA approval allows the initiation of a Phase I trial that will be conducted at the UCLA Jonsson Cancer Center (UCLA) in Los Angeles, California, and the South Texas Accelerated Research Therapeutics (START) clinic in San Antonio, Texas. It will be led by Drs. Antoni Ribas (UCLA) and Anthony Tolcher (START).

"We are pleased to have received FDA approval of our IND application for CALAA-01," said Jeremy Heidel, CSO of Calando. "We look forward to initiating a Phase I clinical trial with CALAA-01 that we believe will be the first clinical study using targeted, systemic delivery of siRNA in an oncology setting. The entire Calando team is excited to be at the forefront of this new area for therapeutic development."

About RNA Interference (RNAi)

RNA interference, or RNAi, is a naturally occurring mechanism within cells for selectively silencing and regulating specific genes. Since many diseases are caused by the inappropriate activity of specific genes, the ability to silence genes selectively through RNAi could provide a new class of medicines to treat a wide range of human diseases. RNAi is induced by small, double-stranded RNA molecules. One method to activate RNAi is with chemically synthesized small interfering RNAs, or siRNAs, which are double-stranded RNAs that are targeted to a specific disease-associated gene. The siRNA molecules are used by the natural RNAi machinery in cells to cause highly targeted gene silencing.

About Calando Pharmaceuticals Inc.

Calando Pharmaceuticals Inc. (www.calandopharma.com), a majority owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), is a biopharmaceuticals company using proprietary technologies developed at Caltech to create targeted siRNA-based therapeutics. Calando combines its innovative RONDEL™ system of polymeric delivery with siRNA to solve the long-standing obstacle of effective delivery and targeting for this revolutionary new field of medicine using RNA interference, or "RNAi". Based upon the innovative breakthrough in siRNA delivery enabled by the RONDEL™ system, the promise of using siRNA in new systemic therapies may finally be realized.

Calando's RONDEL™ technology involves the use of cyclodextrin-containing polymers that form the foundation for its two-part siRNA delivery system. The first component is a linear, cyclodextrin-containing polycation that, when mixed with small interfering RNA (siRNA), binds to the anionic "backbone" of the siRNA. The polymer and siRNA self-assemble into nanoparticles smaller than 100 nm in diameter that fully protect the siRNA from nuclease degradation in serum. The siRNA delivery system has been designed to allow for intravenous injection. Upon delivery to the target cell, the targeting ligand binds to

membrane receptors on the cell surface and the RNA-containing nanoparticle is taken into the cell by endocytosis. There, chemistry built into the polymer functions to unpackage the siRNA from the delivery vehicle. In addition to targeting tumors, the targeting of liver cells has also been accomplished *in vivo*.

Forward-Looking Statements

This news release and any oral statements made with respect to the information contained in this news release, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include statements which express plans, anticipation, intent, contingency, goals, targets, future development and are otherwise not statements of historical fact. These statements are based on Calando's management current expectations and are subject to risks and uncertainties that could cause actual results or developments to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. Factors that may cause actual results or developments to differ materially include, among others: the risk that CALAA-01 or IT-101 may appear promising in early research and clinical trials but may not demonstrate safety and/or efficacy in larger-scale or later stage clinical trials, the risks that the regulatory approvals may not be obtained, the risks associated with dependence upon key personnel, the risks associated with reliance on collaborative partners and others for further clinical trials, development, manufacturing and commercialization of our product candidates; the cost, delays and uncertainties associated with our scientific research, product development, clinical trials and regulatory approval process; our history of operating losses since our inception; competition; litigation; and risks associated with our ability to protect our intellectual property. You are cautioned not to place undue reliance on any forward-looking statements, any of which could turn out to be wrong due to inaccurate assumptions, unknown risks or uncertainties or other risk factors.

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