



**PRESS RELEASE**  
September 15, 2008  
7AM ET

**CALANDO PHARMACEUTICALS ANNOUNCES NEXT siRNA  
THERAPEUTIC CANDIDATE FOR ONCOLOGY**

*Calando Pharmaceuticals announces development of a second siRNA oncology  
therapeutic, CALAA-02, targeting HIF-2alpha*

PASADENA, Calif.— September 15, 2008— Calando Pharmaceuticals, a majority-owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), announced today that pre-clinical development of a second siRNA oncology therapeutic, CALAA-02, is underway. The intracellular target for CALAA-02 is HIF-2alpha, or Hypoxia Inducible Factor-2 alpha. HIF-2alpha is overexpressed in a number of solid tumors and is critical for many aspects of tumorigenesis, such as metastasis, angiogenesis, tumor cell proliferation, and tumor response to radiation. HIF-2alpha has been difficult to target using traditional drugs but is effectively targeted by the proprietary siRNA in CALAA-02.

“We are encouraged by the results obtained thus far with our proprietary anti-HIF-2alpha siRNA and are excited to pursue pre-clinical development of CALAA-02,” said Calando CSO for siRNA delivery, Jeremy Heidel, Ph.D. “We expect our experience with CALAA-01 will simplify and accelerate CALAA-02 development.”

Calando’s first siRNA therapeutic, CALAA-01, which targets the M2 subunit of ribonucleotide reductase, is currently in a Phase I clinical trial. Calando intends to move CALAA-02 into the clinic in 2009 to demonstrate the ability of the RONDEL™ delivery system to rapidly enable the pathway from target identification through pre-clinical development to clinical application of siRNA therapeutics.

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***About Calando Pharmaceuticals Inc.***

Calando Pharmaceuticals Inc. ([www.calandopharma.com](http://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 and small molecule nanoparticle drug conjugates. Calando uses its innovative CycloSert™ and RONDEL™ nanoparticle systems to solve the long-standing obstacle of effective delivery and targeting for oligonucleotide and small molecule therapeutics.

Calando’s CycloSert™ technology uses cyclodextrins as building blocks to create an entirely new class of biocompatible materials - linear cyclodextrin-containing polymers that are non-toxic and non-immunogenic at therapeutic doses. The Company leverages CycloSert™ to design, develop and commercialize drug-delivery-enhanced small-molecule therapeutics. IT-101 is Calando’s lead small

molecule Cycloset conjugate, which recently completed a phase I study in solid tumors at City of Hope Comprehensive Cancer Center.

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. Based upon this breakthrough in siRNA delivery enabled by the RONDEL™ system, the promise of using siRNA in new systemic therapies may finally be realized.

#### *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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