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Arrowhead Announces New Study Demonstrating Rapid Improvement in Pro-Diabetic Metabolic Markers with Anti-Obesity Drug Candidate, Adipotide®

PASADENA, Calif. — June 26, 2012 — Arrowhead Research Corporation (NASDAQ: ARWR), a targeted therapeutics company, today announced the publication of data demonstrating that its anti-obesity drug candidate, Adipotide, induces rapid metabolic changes with implications for Type II diabetes. An independent laboratory reported that obese mice treated with Adipotide displayed significantly improved insulin sensitivity, improved glucose tolerance, and a reduction in serum triglycerides after only 2-3 days of treatment. These effects occurred independent of and prior to Adipotide-induced weight loss. The findings, published online ahead of print in the *Journal of the American Diabetes Association (Diabetes Epub June 25, 2012)*, are presented in a paper titled "Rapid and weight-independent improvement of glucose tolerance induced by a peptide designed to elicit apoptosis in adipose tissue endothelium." The research team is led by Director of the Cincinnati Diabetes and Obesity Center, Dr. Randy Seeley.

"A large amount of data generated over the past eight years across multiple laboratories have suggested that Adipotide is a unique and potentially powerful agent against the obesity epidemic," said Dr. Christopher Anzalone, President and Chief Executive Officer of Arrowhead. "This new study suggests that it may also be a powerful agent against obesity's sister epidemic, Type II diabetes. The extent and speed of the effects reported by Dr. Seeley's group are truly striking. We have always been excited about this new suite of anti-obesity drug candidates for many reasons, including: the unique mode of action; rapid weight loss seen in rodents and non-human primates; and data suggesting that animals have decreased appetites *while* they are losing weight. The current study adds a new dimension to the program and expands the potential reach to include Type II diabetes. We are looking forward to the results of the first human study."

Unlike many anti-obesity drugs in development that attempt to control appetite by targeting the central nervous system, Adipotide acts directly on fat, or Adipose, tissue by disrupting the blood supply to fat cells. Prior studies across multiple animal models have suggested that this leads to weight loss in two primary ways. First, as fat cells are deprived of blood supply they are metabolized by the body. Second, altering the vasculature feeding excess white fat changes metabolic parameters that lead to decreased food intake. The current study takes this a step further and indicates that the metabolic changes may have profound implications for Type II diabetes. Researchers observed that Adipotide treatment "appears to improve white adipose tissue (WAT) function...even while adipose mass is reduced" and "results in improved WAT hormone secretion, plasma lipids, plasma amino acids and WAT gene expression. While counter-intuitive, these data support the hypothesis that WAT function is improved rather than impaired by inhibiting WAT vasculature and that this contributes to the improved glucose regulation."

Dr. Seeley's research group has published results with Adipotide on multiple occasions, including papers titled "Peptide Designed to Elicit Apoptosis in Adipose Tissue Endothelium Reduces Food Intake and Body Weight" *Diabetes*, 59 (2010) 907-915 and "Treating Obesity Like a Tumor" *Cell Metabolism* 15 (2012) 1-2. Dr. Seeley is the Donald C. Harrison Endowed Chair and Professor of Internal Medicine at the University of Cincinnati (Ohio), as well as Director of the Cincinnati Diabetes and Obesity Center. The research was funded by the NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

About Arrowhead Research Corporation

Arrowhead Research Corporation is a clinical stage targeted therapeutics company with development programs in oncology, obesity, and infectious disease. The company leverages its platform technologies to design and develop peptide-drug conjugates (PDCs) which specifically home to cell types of interest while sparing off-target tissues, creates targeted drugs based on the gene silencing RNA interference (RNAi) mechanism, and works with partners to create improved versions of traditional small molecule drugs.

For more information please visit <http://www.arrowheadresearch.com>, or follow us on Twitter [@ArrowRes](https://twitter.com/ArrowRes). To be added to the Company's email list to receive news directly, please send an email to ir@arrowres.com

Safe Harbor Statement under the Private Securities Litigation Reform Act:

This news release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the

date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including our ability to finance our operations, the future success of our scientific studies, our ability to successfully develop drug candidates, the timing for starting and completing clinical trials, rapid technological change in our markets, and the enforcement of our intellectual property rights. Arrowhead Research Corporation's most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q discuss some of the important risk factors that may affect our business, results of operations and financial condition. We assume no obligation to update or revise forward-looking statements to reflect new events or circumstances.

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