



ARCA Raises \$18M For Genetic Heart-Failure Drug

By Brian Gormley

6/8/2007--ARCA Discovery Inc., which is preparing to file for U.S. approval for what would be the first genetically targeted cardiovascular drug, has raised an \$18 million second round, founder and Chief Science and Medical Officer Michael R. Bristow told VentureWire.

InterWest Partners and Skyline Ventures co-led the financing, which also included return backers Atlas Venture and Boulder Ventures. Pequot Ventures, which took part in a \$15 million first round raised in 2006, no longer invests in health care and did not participate. Bristow declined to disclose ARCA's valuation but said it has increased significantly.

ARCA later this year expects to file for U.S. approval of a next-generation beta blocker therapy for heart failure. A genetic test will be used to identify patients most likely to benefit, an approach that has caught on in cancer therapy but has yet to take hold in cardiovascular diseases.

ARCA, based in Denver, is a spinout from Myogen Inc., a cardiovascular-drug maker that Bristow also founded. Myogen, whose venture backers included InterWest, went public in 2003 and merged with Gilead Sciences Inc. last year. The company in 2005 acquired exclusive rights to the beta blocker bucindolol from Incara Pharmaceuticals Corp. and Indevus Pharmaceuticals Inc., which owned its rights through a limited liability company they jointly owned. The drug had been tested in more than 4,000 patients but did not show efficacy in the government-supported beta-blocker evaluation survival trial.

By analyzing the DNA of patients tested in clinical trials, ARCA founding scientists Bristow – also a professor of medicine and former head of cardiology at University of Colorado Health Sciences Center – and Stephen Liggett discovered genetic variations in two adrenergic receptors that help predict whether an advanced heart failure patient is likely to respond well to bucindolol.

By using the bucindolol in conjunction with a genetic test under development by partner Laboratory Corporation of America Holdings, ARCA hopes to turn it into a success. The test identifies variations of the alpha-2c and beta-1 adrenergic receptors.

The American Heart Association estimates that nearly five million Americans live with heart failure, in which the heart fails to pump blood effectively. About 45% of heart-failure patients could be helped by ARCA's drug, according to Bristow.

Genetically targeted cancer drugs such as Genentech Inc.'s Herceptin, which drew \$1.2 billion in 2006 net U.S. sales, have become big sellers. Bristow said he sees market potential of up to \$300 million for bucindolol in the initial indications ARCA's pursuing. The company is also researching three additional indications, all undisclosed, that could expand the drug's use even further. ARCA intends to market bucindolol in the U.S. and to find a corporate partner for Europe, Bristow said.

Other venture-backed companies striving to bring molecular medicine to cardiovascular disease include CardioDx Inc., a Palo Alto, Calif., start-up that has raised capital from Kleiner Perkins Caufield & Byers, Mohr Davidow Ventures and TPG Ventures to develop molecular diagnostics for heart disease.

Skyline Managing Director David G. Lowe and InterWest entrepreneur-in-residence Linda Grais are joining the ARCA board.