



Contact for Oak Ridge National Laboratory  
Michael Bradley, 865.576.9553  
[bradleymk@ornl.gov](mailto:bradleymk@ornl.gov)

Contact for Battelle Ventures  
Rick Sacks, 973.467.8728  
[rick@smartpr.net](mailto:rick@smartpr.net)

## **Battelle Ventures Broadens Life Sciences Portfolio; Creates NellOne Therapeutics, Inc., a Spinout from Oak Ridge National Laboratory**

*Start-up could provide breakthrough treatment for vascular disease*

**PRINCETON, N.J.**, June 4, 2008 – Battelle Ventures, LP, has spun out regenerative-medicine start-up NellOne Therapeutics, Inc. (NellOne), from the U.S. Department of Energy’s Oak Ridge National Laboratory (ORNL), with an initial \$1.5-million seed investment from the fund and its Tennessee affiliate, Innovation Valley Partners. The investment will be tranced based on key technical milestones.

“Patients with heart-muscle damage could one day be helped by treatments that NellOne is developing based on scientific discoveries made at ORNL in its Biosciences Division,” said Battelle Ventures General Partner Tracy Warren.

“Using a mutant mouse model, Senior Staff Scientist Dr. Cymbeline Culiat in the Systems Genetics Group identified the activity of the Nell-1 gene’s novel cell-signaling pathway that is critical to tissue growth and maturation in key mammalian organs,” explained Warren, who is acting NellOne CEO.

“We created this company to translate Dr. Culiat’s discovery into clinical applications,” continued Warren, noting that NellOne is the seventh life sciences company in Battelle Ventures’ portfolio and the first in the area of therapeutics.

“NellOne is dedicated to creating and commercializing protein therapeutics that can be delivered to damaged tissue with the unique potential to restore both tissue mass AND *function* in patients recovering from heart attacks,” Warren said. “Current approaches, such as those based on stem cells, have shown the potential to restore tissue mass, but with only limited recovery of function.”

Warren said that NellOne is currently operating in the “virtual company” model that Battelle Ventures has developed to provide the most productive and capital-efficient environment during the highest-risk phases of a company’s development – in this case, the proof-of-efficacy stage.

“Most of the funding is dedicated to development of intellectual property,” she said, adding that there are no employees and scientific activity remains for now at ORNL. The company’s official address is the Innovation Valley Partners’ office in Knoxville, Tenn., but the company is a virtual one. She added that Dr. Culiat, who authored the various related patent applications filed, will lead ORNL research focusing on applications for rebuilding damaged cardiac muscle.

“The promise of restoring both normal tissue mass AND function comes from leveraging a critical natural cell growth and maturation pathway,” said Dr. Culiati. “We will be testing approaches to stimulate this cell-signaling mechanism in injured tissues of specific organ systems, to initiate cell regrowth, and subsequent maturation of tissue structures so that normal organ functions are restored.

“It’s not just cell regrowth that is important, but also the way cells are organized to support organ function,” Dr. Culiati continued. “Current data from small-animal studies show that the Nell-1 protein triggers maturation of certain cell types to enable new tissue to perform its normal functions.”

“This staged seed investment is sufficient to objectively determine early proof of principle, identify potential impediments to commercialization and determine if the level of risk is acceptable before taking the company to the next level,” said Warren. “Battelle Ventures is taking specific steps to make sure that all the right tests are done early and that potential negatives are surfaced.

“While cardiovascular therapeutics is a fairly crowded space, there are medical needs that are not being adequately addressed,” Warren added. “We created NellOne to explore its unique, breakthrough potential. Treatment of cardiovascular diseases presents a huge and growing market and current treatment options, such as daily drug doses, are poor, at best. We believe that the novel features of NellOne’s platform, if proven commercially viable, could propel the company to a leading role in treating vascular disease.”

#### **About Battelle Ventures and Innovation Valley Partners**

Battelle Ventures and its affiliate fund, Innovation Valley Partners (IVP), have a combined \$255 million under management to create and accelerate the development of early-stage technology companies with breakthrough solutions to multiple marketplace problems. The funds enjoy close relationships with the technology transfer offices of the National Laboratories that Battelle Memorial Institute (Battelle) manages or co-manages for the U.S. Department of Energy. They also have established similar associations with a number of university tech transfer and commercialization departments. Battelle is the \$220-million Battelle Ventures fund’s sole limited partner and Eastern Tennessee business leaders back the \$35-million IVP fund; the two funds invest side by side in all deals. For information about the funds’ joint health & life sciences portfolio, go to [www.battelleventures.com/health\\_life\\_sciences.html](http://www.battelleventures.com/health_life_sciences.html).

#### **About Oak Ridge National Laboratory (ORNL)**

ORNL is the Department of Energy’s largest science and energy laboratory, with some 4,200 staff, 2,000 scientists and engineers, and \$1.3 billion in annual funding. Established in 1943, ORNL became an international center for the study of nuclear energy and related research in the physical and life sciences during the 1950s and 1960s. Since UT-Battelle assumed management of ORNL in April 2000, more than 80 companies have been created based on ORNL technology and other resources. NellOne represents the first venture-backed start-up based entirely on a technology arising from the DOE mammalian genetics program at ORNL. For more information about ORNL, go to [www.ornl.gov/ornlhome/about.shtml](http://www.ornl.gov/ornlhome/about.shtml)

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