

For Immediate Release

TSX Exchange Symbol: RVX

Resverlogix Commences Phase 2 Atherosclerosis Clinical Trial*Cleveland Clinic initiates dosing in ASSERT Trial*

December 22, 2009 (Calgary, AB) — Resverlogix Corp. (“Resverlogix” or the “Company”) (TSX:RVX) announced today that it has begun dosing patients in its US Phase 2 clinical trial lead by Cleveland Clinic. This trial will examine RVX-208, Resverlogix’s oral small molecule therapy for the treatment of atherosclerosis, in patients with stable coronary artery disease (CAD). This study is chaired by Dr. Steven Nissen, MD, Chairman of the Cleveland Clinic Department of Cardiovascular Medicine and the principal investigator is Dr. Stephen Nicholls, Medical Director of Intravascular Ultrasound at Cleveland Clinic. The Cleveland Clinic has named this trial, ASSERT, which stands for ApoA1 Synthesis Stimulation Evaluation in Patients Requiring Treatment for Coronary Artery Disease. A total of 40 investigator sites across the US will be participating in the study.

“I am pleased to see the start of this 18 week randomized, outpatient multicenter, double-blind, placebo-controlled study that will administer RVX-208 to approximately 280 patients with stable CAD for 13 weeks,” said Dr. Stephen J. Nicholls, MBBS, PhD, Medical Director of the Atherosclerosis Imaging Core Laboratories at Cleveland Clinic and Cardiovascular Director of the Cleveland Clinic Coordinating Center for Clinical Research. “This trial is one of two parallel studies, in this particular study the focus is on stable CAD patients, while the second trial will be focused on unstable acute coronary syndrome and will include the use of intravascular ultrasound (IVUS).”

Cardiovascular disease is the leading cause of death in the US and other developed nations costing the American health care system an estimated \$448.5 billion in 2008. A key underlying cause of cardiovascular disease is atherosclerosis, a build-up of plaque in the arteries often referred to as ‘hardening of the arteries’.

The primary objective of this study is to determine if RVX-208 will produce an increase in plasma ApoA-I levels compared to placebo group after three months of dosing. The secondary objectives are to examine the safety and tolerability of RVX-208, to compare the dose and time response relationships for ApoA-I over time as well as to examine key reverse cholesterol markers such as Alpha 1 HDL.

“The initiation of the ASSERT Trial is another important milestone that Resverlogix has achieved this year. Our clinical trials to date have produced very encouraging results for our lead drug, RVX-208, for the treatment of atherosclerosis. Currently, there is a void in therapies that can regress atherosclerosis. The current standard of care is statin therapies, which can only stop atherosclerosis from progressing but in almost all cases is unable to remove it. If RVX-208 is able to achieve this goal it would be an important step toward the reduction of disease risk and lower health system costs. We are delighted to have this trial dose its first patients two months ahead of schedule,” said Donald J. McCaffrey, President and CEO of Resverlogix.

About RVX-208

RVX-208, a novel small molecule therapeutic that facilitates endogenous ApoA-I production, is positioned to be one of the most promising emerging drugs in the treatment of atherosclerosis. To the Company’s knowledge RVX-208 is the only novel small molecule that is specifically designed to increase ApoA-I production and thereby raise HDL levels thus enhancing HDL functionality to augment reverse cholesterol transport (RCT). RCT is a pathway by which accumulated cholesterol is transported from the arterial wall to the liver for excretion, thus preventing atherosclerosis.

About Resverlogix Corp.

Resverlogix Corp. is a leading biotechnology company engaged in the development of novel therapies for important global medical markets with significant unmet medical needs. The NexVas™ PR program is the Company’s primary focus which is to develop novel small molecules

that enhance ApoA-I. These vital therapies address the burden of atherosclerosis and other important diseases such as Acute Coronary Syndrome, Diabetes, Alzheimer's disease, Peripheral Artery Disease and other vascular disorders. Resverlogix Corp. trades on the Toronto Stock Exchange (TSX:RVX). For further information please visit www.resverlogix.com.

This news release may contain certain forward-looking statements as defined under applicable Canadian securities legislation, including our statements with respect to vision to be a leader in the research, development and commercialization of novel therapeutics that reduce the risk of cardiovascular disease including atherosclerosis, diabetes, Alzheimer's disease, Peripheral Artery Disease and other vascular diseases. These forward-looking statements contained herein that are not based on historical fact, including without limitation statements containing the words "believes", "anticipates", "plans", "intends", "will", "should", "expects", "continue", "estimate", "forecasts" and other similar expressions. Our actual results, events or developments could be materially different from those expressed or implied by these forward-looking statements. We can give no assurance that any of the events or expectations will occur or be realized. By their nature, forward-looking statements are subject to numerous known and unknown risks and uncertainties including but not limited to those associated with the success of research and development programs, clinical trial programs including possible delays in patient recruitment, the regulatory approval process, competition, securing and maintaining corporate alliances, market acceptance of the Company's products, the availability of government and insurance reimbursements for the Company's products, the strength of intellectual property, financing capability, the potential dilutive effects of any financing, reliance on subcontractors and key personnel and additional risk factors discussed in other documents we file from time to time with securities authorities, which are available through SEDAR at www.sedar.com. Additionally, risks and uncertainties are discussed in detail in the December 15, 2009 MD&A. The forward-looking statements contained in this news release are expressly qualified by this cautionary statement are made as of the date hereof. The Company disclaims any intention and has no obligation or responsibility, except as required by law, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The TSX Exchange does not accept responsibility for the adequacy or accuracy of this news release.

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