



CYTOMEDIX EXPANDS COMMITMENT TO REGENERATIVE MEDICINE WITH ACQUISITION OF ALDAGEN

CONFERENCE CALL BEGINS AT 10:00 A.M. EASTERN TIME FEBRUARY 9

GAITHERSBURG, Md. (February 8, 2012) – Cytomedix, Inc. (OTC/BB: CMXI) (the Company), a leading developer of biologically active regenerative therapies for wound care, inflammation and angiogenesis, announces the completion of the acquisition of Aldagen, Inc., a privately held biopharmaceutical company developing regenerative cell therapies based on its proprietary ALDH bright cell (ALDH^{br}) technology. Under the terms of the transaction as described below, Cytomedix issued preferred shares valued at \$16 million based on a 10-day volume-weighted average price (WAP) calculated through February 2, 2012. Cytomedix will issue additional consideration to be paid in common stock upon the successful attainment of several clinical milestones. As part of the transaction, certain Aldagen investors purchased \$5.0 million of Cytomedix common stock in a private placement concurrent with the closing of this acquisition.

Martin P. Rosendale, Chief Executive Officer of Cytomedix, commented, "Since joining Cytomedix as chief executive in 2008, our strategy has evolved, but the vision to transform the Company from a wound-care based technology platform into a broader regenerative medicine company has remained constant. In pursuit of this vision, we started with the successful 2010 acquisition and integration of the Angel System, a unique, best-in-class PRP platform technology that has allowed us to grow from nominal sales to \$6 million per year in just over 18 months."

"This strategic acquisition of Aldagen provides Cytomedix with a novel, patent-protected cell selection technology that fits well with our existing commercial products and strengthens our long-range growth profile," he continued. "In combination, we now touch the three pillars of regenerative medicine with autologous stem cells, platelet-derived signal molecules and plasma scaffolds," he added. "We view the acquisition of Aldagen as an opportunistic transaction at an attractive valuation that will allow us to build and expand our new product development efforts with Aldagen's technology, intellectual property, people and clinical expertise. In terms of maximizing opportunity for our shareholders while managing and mitigating risk, we feel this transaction is very advantageous."

Commenting on the acquisition, Richard Kent, M.D., Chairman of the Board of Aldagen and a Partner with Intersouth Partners, Aldagen's largest shareholder, said, "We are delighted to join forces with Cytomedix as this alignment unites commercial products with a growing revenue stream with a deep pipeline of clinical opportunities. We believe these autologous technologies are complementary and hold potential to produce more therapeutics than either one could on its own. The commitment of additional capital into Cytomedix by certain Aldagen investors underscores our confidence in the very promising potential for the combination of these regenerative technologies to change how we treat a variety of large disease areas with continued unmet medical need."

Transaction Terms

At the closing, Cytomedix issued 135,398 newly designated Cytomedix Series E preferred shares to Aldagen shareholders. Pro forma for the conversion of these shares to common stock, as set forth in the designations documents for the Series E preferred stock, Aldagen shareholders will own approximately 17.3% of Cytomedix common shares outstanding after the concurrent conversion and/or redemption of all existing Cytomedix preferred shares.

There are also contingent clinical milestone payments totaling up to 20,309,723 shares, which will be issued to Aldagen shareholders upon the achievement of predetermined clinical milestones associated with an ongoing Aldagen Phase 2 trial in post-acute ischemic stroke. Notably, 80% of this contingent consideration is issuable only upon a favorable clinical efficacy signal in the above-mentioned trial. The costs of the clinical trial will be funded, in part, by the \$5.0 million investment made by Aldagen shareholders, \$3.0 million in proceeds from completed or committed warrant exercises by existing Cytomedix shareholders, as well as a portion of Cytomedix cash on hand. All upfront and contingent consideration shares are subject to lockup restrictions ranging from six to 18 months.

As part of the transaction, as of the closing date three Aldagen Board members have joined the Cytomedix Board, which has been expanded to nine seats. They are Richard Kent, M.D., Chairman of the Board of Aldagen, Lyle Hohnke, Ph.D., Aldagen's former CEO, and Joseph Del Guercio, Managing Director of CNF Investments and a current Board Observer for Aldagen. Concurrent with these additions, Craig Mendelsohn has stepped down from the Cytomedix Board.

In addition, Edward L. Field, Aldagen's Chief Operating Officer, has been appointed as Chief Operating Officer of Cytomedix.

Aldagen is now a wholly owned subsidiary of Cytomedix and will retain manufacturing and product development facilities in Durham, N.C.

For additional information about this transaction, please refer to the Company's Report on Form 8-K, filed with the Securities and Exchange Commission on or about February 8, 2012.

About Aldagen

Aldagen is a clinical-stage biopharmaceutical company developing patent-protected autologous cell-based therapeutics for tissue repair and regeneration. Aldagen's clinical development efforts are led by a team of leading researchers and experienced clinicians. All product candidates target conditions with significant unmet medical needs. Aldagen has a deep product pipeline and data generated in a number of disease states including:

- ALD-301 for the treatment of peripheral arterial disease (PAD) and critical limb ischemia (CLI)
- ALD-201 for the treatment of ischemic heart failure
- ALD-401 for the treatment of ischemic stroke

Safety has been demonstrated in more than 70 patient treatments across all clinical trials of ALDH^{br} cells and positive study results in CLI and cardiac ischemia have been published and presented at major medical meetings. A growing body of scientific data validates Aldagen's proprietary technology, including approximately 250 peer-reviewed publications and presentations. Aldagen has the only stem cell selection technology utilizing an intracellular enzyme marker to fractionate essential regenerative cells from bone marrow.

Aldagen's proprietary bone marrow fractionation process identifies and isolates metabolically active cells expressing high levels of the enzyme aldehyde dehydrogenase, or ALDH, which is a key enzyme involved in the regulation of gene activities associated with cell proliferation and differentiation. The selected biologically instructive cells, ALDH^{br} cells, have the potential to promote the repair and regeneration of multiple types of cells and tissues, including the growth of new blood vessels, which is critical to the generation of healthy tissue. Preclinical research suggests that ALDH^{br} cells specifically migrate to sites of ischemic damage and induce the formation of new blood vessels at those sites. In human clinical trials utilizing ALDH^{br} cells, evidence of improved perfusion in ischemic tissue has been observed. Other stem cell therapies require expansion of cells that increase manufacturing and regulatory risk, increase processing costs and may delay treatment of the patient up to several weeks. Aldagen produces well-characterized cell populations with a high level of purity without the need for these additional steps, thereby enabling a rapid turnaround time . typically 36 hours once the bone marrow is received.

Opus National Capital Markets served as financial advisor and Cozen O'Connor served as legal counsel to Cytomedix on the acquisition. The Merchant Banking Group of Burrill & Company served as financial advisor and Hutchison Law Group served as legal counsel to Aldagen, Inc. on the transaction.

Conference Call

Cytomedix and Aldagen management will hold a conference call to discuss the acquisition and to answer questions beginning at 10:00 a.m. Eastern time on Thursday, February 9, 2012. Shareholders and other interested parties may participate in the call by dialing 888-713-4214 (domestic) or 617-213-4866 (international) and entering passcode 15132911. The call will also be broadcast live on the Internet at www.streetevents.com, www.fulldisclosure.com and www.cytomedix.com. A slide presentation will accompany the conference call and will be posted at 8:00 a.m. Eastern time on Thursday, February 9, 2012 to the home page of the Company's website at www.cytomedix.com.

A replay of the conference call will be available beginning two hours after its completion through February 16, 2012 by dialing 888-286-8010 (domestic) or 617-801-6888 (international) and entering passcode 48593244. The call will also be archived for 90 days at www.streetevents.com, www.fulldisclosure.com and www.cytomedix.com.

About Cytomedix, Inc.

Cytomedix develops, sells and licenses regenerative biological therapies primarily for wound care, inflammation and angiogenesis. The Company markets the AutoloGel[®] System, a device for the production of autologous platelet rich plasma (aPRP) gel for use on a variety of exuding wounds; the Angel[®] Whole Blood Separation System, a blood processing device and disposable products used for the separation of whole blood into red cells, platelet poor plasma (aPPP) and PRP in surgical settings; and the activAT[®] Autologous Thrombin Processing Kit, which produces autologous thrombin serum from PPP. The activAT[®] kit is sold exclusively in Europe and Canada, where it provides a completely autologous, safe alternative to bovine-derived products. The Company is pursuing a multi-faceted strategy to penetrate the chronic wound market with its products, as well as opportunities for the application of AutoloGel[®] and PRP technology into other markets such as hair transplantation and orthopedics while actively seeking complementary products for the wound care market. Additional information regarding Cytomedix is available at www.cytomedix.com.

Safe Harbor Statement

Statements contained in this communication not relating to historical facts are forward-looking statements that are intended to fall within the safe harbor rule for such statements under the Private Securities Litigation Reform Act of 1995. The information contained in the forward-looking statements is inherently uncertain, and Cytomedix's actual results may differ materially due to a number of factors, many of which are beyond Cytomedix's ability to predict or control, including many among others, risks and uncertainties related to the Company's ability to successfully integrate this acquisition, to successfully manage contemplated clinical trials, to manage and address the capital needs, human resource, management, compliance and other challenges of a larger, more complex and integrated business enterprise, viability and effectiveness of the Company's sales approach and overall marketing strategies, commercial success or acceptance by the medical community, competitive responses, the Company's ability to raise additional capital and to continue as a going concern, and Cytomedix's ability to execute on its strategy to market the AutoloGel System as contemplated. To the extent that any statements made here are not historical, these statements are essentially forward-looking. The Company uses words and phrases such as "believes", "forecasted," "projects," "is expected," "remain confident," "will" and/or similar expressions to identify forward-looking statements in this press release. Undue reliance should not be placed on forward-looking information. These forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual events to differ from the forward-looking statements. More information about some of these risks and uncertainties may be found in the reports filed with the Securities and Exchange Commission by Cytomedix, Inc. Cytomedix operates in a highly competitive and rapidly changing business and regulatory environment, thus new or unforeseen risks may arise. Accordingly, investors should not place any reliance on forward-looking statements as a prediction of actual results. Except as is expressly required by the federal securities laws, Cytomedix undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, changed circumstances or future events or for any other reason. Additional risks that could affect our future operating results are more fully described in our U.S. Securities and Exchange Commission filings, including our Annual Report for the year ended December 31, 2010, filed with the SEC and other subsequent filings. These filings are available at <http://www.sec.gov>.

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