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NOVELOS THERAPEUTICS AND ACADEMIC COLLABORATORS HAVE THREE ABSTRACTS ACCEPTED FOR PRESENTATION AT 2012 AACR ANNUAL MEETING

Broad-Spectrum, Cancer-Targeting Therapeutic and Diagnostic Agents Described

MADISON, WI, March 1, 2012 – Novelos Therapeutics, Inc. (OTCQX: NVLT), a pharmaceutical company developing novel drugs for treatment and diagnosis of cancer, today announced that three scientific posters based on research conducted by Jamey Weichert, Ph.D., and his colleagues will be presented at the American Association for Cancer Research (AACR) annual meeting in April, 2012 in Chicago. These presentations will describe findings in animal and cellular model systems that illustrate Novelos' cancer-targeting technology platform and the resulting clinical-stage dipeptic agents capable of imaging and treating a wide range of malignancies. An abstract of each presentation will be published in the 2012 Proceedings of the AACR. Dr. Weichert is the Chief Scientific Officer of Novelos, founder of Novelos' technology, and is an Associate Professor of the Department of Radiology in the School of Medicine and Public Health at the University of Wisconsin, Madison. Dr. Weichert and his University colleagues are all members of the UW Carbone Cancer Center.

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I-124-CLR1404 and I-131-CLR1404: Broad spectrum dipeptic agents for cancer cell-targeted PET imaging and molecular radiotherapy (Abstract #5740) Dr. Weichert and his colleagues will present data appearing to demonstrate broad spectrum, selective uptake and retention of the chemical structure shared by I-124-CLR1404 (LIGHT), a PET imaging agent, and I-131-CLR1404 (HOT), a cytotoxic molecular radiotherapeutic, in human cancer cells and in vivo tumor models. This dipeptic agent may enable a personalized approach to diagnosis, treatment planning and subsequent therapy in a wide range of cancer types.

I-131-CLR1404 and CLR1404: Broad spectrum, cancer-targeted molecular radio- and chemotherapeutic phospholipid ether analogs (Abstract #3831) The second presentation by Dr. Weichert and his colleagues will report on data appearing to demonstrate the efficacy of I-131- CLR1404 (HOT) and CLR1404 (COLD), the non-radioactive and, at higher dose levels, Aktinhibiting version of the same chemical structure, in a wide variety of human xenograft models. The cancer-targeting properties of these agents may minimize damage to normal cells and tissues, which would result in favorable therapeutic indices.

The novel phospholipid ether analog CLR1404 decreases glioblastoma stem cell proliferation, suppresses GBM growth, and improves survival (Abstract #3495) Dr. Weichert, John Kuo, M.D., Ph.D., Assistant Professor of the Department of Neurological Surgery, and their colleagues' presentation will describe data appearing to demonstrate the ability of CLR1404 (COLD) to selectively target human glioma stem cells, in vitro and in vivo, in addition to mature glioma cells and to inhibit their proliferation. Suppression of cancer stem cells could offer therapeutic advantages including fewer metastases and decreased probability of cancer relapse following treatment.

"We believe the data being presented at the AACR Annual Meeting collectively describe the ability of our optimized phospholipid ether analogs to selectively target cancer cells and cancer stem cells and also describe their underlying, lipid raft-based targeting mechanism," said Dr. Weichert. "We further believe the resulting array of clinical-stage PET-imaging and radiotherapeutic agents, as well as a preclinical-stage chemotherapeutic, has the potential to be a unique dipeptic approach to cancer diagnosis and therapy in a wide range of indications."

About the UW Carbone Cancer Center in Madison

The University of Wisconsin Carbone Cancer Center (UWCCC) is recognized throughout the nation as one of the leading innovators in cancer research, quality patient care and active community involvement. It is the only comprehensive cancer center, as designated by the National Cancer Institute, in Wisconsin. An integral part of the UW School of Medicine and Public Health, the UWCCC unites physicians and scientists who work together in translating discoveries from research laboratories into new treatments that benefit cancer patients. To learn more about clinical studies and other initiatives, visit www.uwhealth.org/uw-carbone-cancercenter/for-researchers/uwccc/28373

About Novelos Therapeutics, Inc.

We are a pharmaceutical company developing novel drugs for the treatment and diagnosis of cancer. Our three cancer-targeted compounds are selectively taken up and retained in cancer cells, including cancer stem cells, versus normal cells. Thus, our therapeutic compounds appear to directly kill cancer cells while minimizing harm to normal cells. This offers the

potential for a paradigm shift in cancer therapy by providing efficacy versus all three major drivers of mortality in cancer: primary tumors, metastases and stem cell-based relapse. I-124-CLR1404 (LIGHT) is a small-molecule cancer-targeted PET imaging agent. We believe LIGHT has first-in-class potential and Phase 1-2 clinical trials are ongoing. I-131-CLR1404 (HOT) is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that delivers cytotoxic radiation directly and selectively to cancer cells and cancer stem cells. We believe HOT also has first-in-class potential. HOT Phase 1b dose-escalation trial is ongoing and we expect HOT to enter Phase 2 trials in the first quarter of 2013 as a monotherapy for solid tumors with significant unmet medical need, subject to additional funding. CLR1404 (COLD), a cancer-targeted nonradioactive chemotherapy, works primarily through Akt inhibition. We plan to file an IND for COLD in the first quarter of 2013, subject to additional funding. Together, we believe our compounds are able to “find, treat and follow” cancer anywhere in the body in a novel, effective and highly selective way. For additional information please visit www.novelos.com

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