

Del Mar Pharmaceuticals to Present New Pre-clinical Data Related to the Mechanism of VAL-083 at the AACR Annual Meeting in April 2012

VANCOUVER, BRITISH COLUMBIA – (Marketwire – Feb. 7, 2012) Del Mar Pharmaceuticals today announced that a pre-clinical abstract entitled, “VAL083, a novel N7 alkylating agent, surpasses temozolomide activity and inhibits cancer stem cells providing a new potential treatment option for glioblastoma multiforme,” will be presented April 1, 2012 at the American Association for Cancer Research (AACR) Annual Meeting, which is being held March 31 thru April 4, 2012 in Chicago, USA.

VAL-083 represents a ‘first in class’ small-molecule chemotherapeutic, which has been assessed in multiple NCI-sponsored clinical studies. Published pre-clinical and clinical data suggest that VAL-083 may be active against a range of tumor types, including glioblastoma multiforme (GBM), the most common and aggressive form of brain cancer. Del Mar Pharma has initiated a Phase I/II clinical trial of VAL-083 in patients with recurrent GBM, from which data are anticipated later this year.

Temozolomide (Temodar™) in combination with radiation is a standard front-line therapy for the treatment of newly diagnosed GBM; however, the majority of patients fail to respond to treatment. Published research suggests that the activity of a naturally occurring DNA repair enzyme called O⁶-methylguanine-DNA methyltransferase (MGMT) may be responsible for resistance to temozolomide and other alkylating agents used in the treatment of GBM.

“These pre-clinical data from human brain tumor cell lines distinguishes VAL-083 from standard-of-care by demonstrating that the unique mechanism and anti-tumor activity of VAL-083 is independent of MGMT-related drug resistance,” said Jeffrey Bacha, President & CEO of DelMar Pharma. “We believe that this work, which is ongoing, illustrates the promise of VAL-083 in refractory GBM and may allow physicians to eventually tailor therapy for those less likely to respond to the current front-line standard-of-care.”

VAL-083 was recently designated as an orphan drug for the treatment of glioma by the United States FDA Office of Orphan Products Development. Among the benefits of orphan designation in the United States are seven years of market exclusivity following FDA approval, waiver or partial payment of application fees, and tax credits for clinical testing expenses conducted after orphan designation is received.

About the VAL-083 Clinical Study

Del Mar Pharma is sponsoring a Phase I/II open-label, single arm dose-escalation study designed to evaluate the safety, tolerability, pharmacokinetics and anti-tumor activity of VAL-083 in patients with histologically confirmed initial diagnosis of primary WHO Grade IV



malignant glioma (GBM), now recurrent. The study is being conducted under the direction of Dr. Howard Burris at the Sarah Cannon Research Institute in Nashville, Tennessee.

Patients with prior low-grade glioma or anaplastic glioma are eligible, if histologic assessment demonstrates transformation to GBM. Patients must have been previously treated for GBM with surgery and/or radiation, if appropriate, and must have failed both Bevacizumab (Avastin[®]) and temozolomide (Temodar[®]), unless either or both are contra-indicated.

Response to therapy and disease progression will be evaluated by MRI prior to each treatment cycle. An initial phase of the study, currently being enrolled, involves dose escalation cohorts until a maximum tolerated dose (MTD) is established in the context of modern care. Once the modernized dosing regimen has been established, additional patients will be enrolled at the MTD (or other selected optimum dosing regimen).

Further information on this clinical trial can be found at

<http://www.clinicaltrials.gov/ct2/show/NCT01478178?term=val-083&rank=1>

ClinicalTrials.gov Identifier: NCT01478178

About Glioblastoma Multiforme (GBM)

Glioblastoma multiforme (GBM) is the most common and most malignant form of brain cancer. Of the estimated 17,000 primary brain tumors diagnosed in the United States each year, approximately 60% are gliomas. Attention was drawn to this form of brain cancer when Senator Ted Kennedy was diagnosed with glioblastoma and ultimately died from it.

Newly diagnosed patients suffering from GBM are initially treated through invasive brain surgery, although disease progression following surgical resection is nearly 100%. Temozolomide (Temodar[™]) in combination with radiation is the front-line therapy for GBM following surgery. Temodar[™] currently generates more than US\$950 million annually in global revenues primarily from the treatment of brain cancer.

Approximately 60% of GBM patients treated with Temodar[®] experience tumor progression within one year. Bevacizumab (Avastin[®]) has been approved for the treatment of GBM in patients failing Temodar[®]. According to the Avastin[®] label, approximately 20% of patients failing Temodar[™] respond to Avastin[™] therapy. Analysts anticipate annual Avastin[®] revenues for the treatment of brain cancer may reach US\$650 million by 2016.

Approximately 48% of patients who are diagnosed with GBM will fail both front-line therapy and Avastin[™]. Del Mar Pharma estimates that the market for treating GBM patients post-Avastin failure exceeds US\$200 million annually in North America.

About VAL-083

VAL-083 represents a 'first in class' small-molecule chemotherapeutic. VAL-083 has been assessed in multiple NCI-sponsored clinical studies in various cancers including lung, brain, cervical, ovarian tumors and leukemia. Published pre-clinical and clinical data suggest that



VAL-083 may be active against a range of tumor types. VAL-083 is approved as a cancer chemotherapeutic in China for the treatment of chronic myelogenous leukemia and solid tumors, including lung cancer.

Based on published research, the mechanism of action of VAL-083 is understood to be a bi-functional alkylating agent; however, the functional groups associated with alkylating events has been shown to differ from other alkylating agents used in the treatment of GBM.

VAL-083 has demonstrated activity in cyclophosphamide, BCNU and phenylalanine mustard resistant cell lines and no evidence of cross-resistance has been encountered in published clinical studies. Based on the presumed alkylating functionality of VAL-083, published literature suggests that DNA repair mechanisms associated with Temodar and nitrosourea resistance, such as O6-methylguanine methyltransferase (MGMT), may not confer resistance to VAL-083.

VAL-083 readily crosses the blood brain barrier where it maintains a long half-life in comparison to the plasma. Published preclinical and clinical research demonstrates that VAL-083 is selective for brain tumor tissue.

VAL-083 has been assessed in multiple studies as chemotherapy in the treatment of newly diagnosed and recurrent brain tumors. In general, tumor regression was achieved following therapy in greater than 40% of patients treated and stabilization was achieved in an additional 20% - 30%. In published clinical studies, VAL-083 has previously been shown to have a statistically significant impact on median survival in high-grade gliomas when combined with radiation vs. radiation alone.

The main dose-limiting toxicity related to the administration of VAL-083 in previous clinical studies was myelosuppression. No significant hepatic, renal or pulmonary toxicity has been reported in the literature or overseas commercial experience.

About Del Mar Pharma

Del Mar Pharmaceuticals was founded in 2010 to develop and commercialize proven cancer therapies in new orphan drug indications where patients are failing modern targeted or biologic treatments. The Company's lead asset, VAL-083, benefits from extensive clinical research sponsored by the US National Cancer Institute, and is currently approved as a cancer chemotherapeutic overseas. Published pre-clinical and clinical data suggests that VAL-083 may be active against a range of tumor types via a novel mechanism of action.

For further information, please visit www.delmarpharma.com or contact Jeffrey A. Bacha, President & CEO +1 (604) 629-5989