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Data from a Phase 2 Study Presented at the 2012 ASCO Annual Meeting Continues to Show Early Activity of OGX-427 in Patients with Prostate Cancer

BOTHELL, Wash. and VANCOUVER, British Columbia, June 4, 2012 /PRNewswire/ -- OncoGenex Pharmaceuticals, Inc. (NASDAQ: OGXI) announced today data from a Phase 2 study of its investigational compound OGX-427 in chemotherapy-naive metastatic castration resistant prostate cancer (mCRPC) patients will be presented during an oral presentation at the 2012 American Society of Clinical Oncology (ASCO) annual meeting on Tuesday, June 5. Preliminary results show a higher number of patients taking OGX-427 plus prednisone without disease progression at 12 weeks and with declines in prostate-specific antigen (PSA), compared with those taking prednisone alone.

Sixty-four of 72 planned patients have been randomized to the study and data on 42 patients [22 who received OGX-427 plus prednisone and 20 who received prednisone alone] are now available at or beyond the 12 week assessment time point. Highlights are as follows:

- In the OGX-427 plus prednisone arm, 71% of patients were progression-free at 12 weeks, compared to 40% in the prednisone alone arm. The primary efficacy endpoint of this study is defined as the proportion of patients without disease progression at 12 weeks where disease progression is based on any of the following parameters: PSA levels, measurable disease, bone lesions, global deterioration or requiring palliative radiation therapy.
- Fifty percent of patients who received OGX-427 plus prednisone experienced a > 50% decline in PSA, versus 20% of patients who received prednisone alone.
- Among the 21 patients with baseline measurable disease, 44% (4 of 9) in the OGX-427 plus prednisone arm had a measureable disease response compared to 0% (0 of 12) in the prednisone alone arm. There was 1 complete response in the OGX-427 plus prednisone arm.
- Circulating tumor cell declines from greater than or equal to 5 to < 5 occurred in 55% of patients receiving OGX-427 plus prednisone compared to 41% of patients receiving prednisone alone.
- The authors concluded that OGX-427 appears to be well-tolerated. Adverse events (AEs) have been predominately grade 1-2 and related to infusion reactions. Three grade 4 AEs have been reported and include dizziness, pulmonary embolus and one case of hemolytic uremic syndrome.

"We are encouraged by these early data that further support the ability of OGX-427 to suppress androgen receptor activity and tumor cell survival," said Dr. Kim Chi, a medical oncologist at BC Cancer Agency, British Columbia, Canada, and the primary investigator on the study. "This is important for both the clinical development of OGX-427 and to also further our understanding of how new and emerging therapies may work alone or in combination to treat mCRPC and battle treatment resistance — a serious issue in this and other cancers."

OGX-427 is believed to work by inhibiting the production of Hsp27, a cell-survival protein expressed in many types of cancers including prostate, bladder, pancreas, breast and non-small cell lung cancer. Overexpression of Hsp27 is thought to be an important factor leading to the development of treatment resistance and is associated with negative clinical outcomes in patients with various tumor types.

Along with this study, OGX-427 is currently being evaluated in a Phase 1 trial in superficial or muscle-invasive bladder cancer and a large, randomized Phase 2 trial in metastatic bladder cancer. Initiation of a Phase 2 study of OGX-427 plus Zytiga® is planned for later this year.

About OncoGenex Pharmaceuticals

OncoGenex is a biopharmaceutical company committed to the development and commercialization of new cancer therapies that address treatment resistance in cancer patients. OncoGenex has a diverse oncology pipeline, with each product candidate having a distinct mechanism of action and representing a unique opportunity for cancer drug development. OncoGenex and Teva Pharmaceutical Industries Ltd. (NASDAQ: TEVA) have entered a global collaboration and license agreement to develop and commercialize OncoGenex' lead drug candidate, custirsen. Custirsen is currently in Phase 3 clinical development as a treatment in men with metastatic castrate-resistant prostate cancer. Phase 3 development of custirsen in treatment of advanced, unresectable non-small cell lung cancer is expected to be initiated in 2012. OGX-427 is in Phase 2 clinical

development; OGX-225 is currently in pre-clinical development. More information is available at www.OncoGenex.com.

OncoGenex Forward Looking Statements

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements concerning our anticipated product development activities, such as expected clinical trial initiation and completion and statements regarding the potential benefits and potential development of our product candidates. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. These statements are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described in the forward-looking statements. Such forward-looking statements are subject to risks and uncertainties, including, among others, the risk that final trial results will not demonstrate the same or any potential benefit as observed in preliminary trial results, the risk that subsequent studies may not confirm earlier trial results, the risk of delays in our expected clinical trials, the risk that new developments in the rapidly evolving cancer therapy landscape require changes in our clinical trial plans or limit the potential benefits of our product, the risk that our cash resources are insufficient to fund our planned activities for the time period expected and the other factors described in our risk factors set forth in our filings with the Securities and Exchange Commission from time to time, including the Company's Annual Report on Form 10-K. The Company undertakes no obligation to update the forward-looking statements contained herein or to reflect events or circumstances occurring after the date hereof, other than as may be required by applicable law.

Zytiga is a registered trademark of the Johnson & Johnson Corporation

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