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**Portola Pharmaceuticals Announces that Phase 2 INNOVATE-PCI Trial  
with Elinogrel Achieved Objectives**

*-- Expects Commercial Partner Novartis to Initiate Phase 3 Trial by Q1 2011 --*

**STOCKHOLM, Sweden** (August 30, 2010) – Portola Pharmaceuticals, Inc. today announced results from the Phase 2 INNOVATE-PCI study of its investigational antiplatelet drug, elinogrel, the only competitive, reversible direct-acting P2Y<sub>12</sub> ADP receptor antagonist. Results in patients undergoing non-urgent percutaneous coronary interventions (PCI) showed that an intravenous (i.v.) and oral elinogrel regimen provided more rapid and greater antiplatelet activity than clopidogrel (Plavix®) without a significant increase in the risk of TIMI major and minor bleeding, and was generally well tolerated. These findings establish the basis for clinical dose selection for a pivotal Phase 3 program, which is anticipated to start in the first quarter of 2011. The data were presented today during the Hot Line II – Coronary Artery Disease late-breaker session at the European Society of Cardiology (ESC) Congress in Stockholm. Elinogrel is being developed in collaboration with Novartis, which holds worldwide development and commercialization rights.

“Cardiovascular deaths from thrombotic events [blood clots] continue to rise globally and current antiplatelet medicines are not effective for all patients,” said INNOVATE-PCI study chair Dr. Robert Harrington, Director, Duke Clinical Research Institute in Durham, N.C. “The medical community has particular interest in the development of novel agents, including those that have the potential to offer adaptability in their administration and have a competitive, reversible mechanism of action. The results of this study support the further investigation of elinogrel's use in patients with heart disease.”

## **INNOVATE-PCI Study Design**

The randomized, double-blind, multi-center Phase 2 trial evaluated i.v. and oral elinogrel compared with clopidogrel in addition to standard of care in approximately 650 patients undergoing non-urgent PCI. The study was designed to evaluate multiple endpoints. These included assessing antiplatelet activity (a well-established marker associated with clinical outcomes) in a small pharmacodynamic substudy, and the safety and tolerability of elinogrel across several doses (80 or 120 mg administered i.v., followed by either a 100 mg or 150 mg oral dose) during a 60-120 day treatment period. The study was not designed or powered to examine a specific primary endpoint.

## **INNOVATE-PCI Results**

Elinogrel demonstrated more rapid and greater antiplatelet effect (measured by extent of platelet aggregation) than loading doses of clopidogrel (300-600 mg) that reached statistical significance within 15 to 30 minutes (150 mg,  $p=0.007$ ; 100 mg,  $p=0.015$ ) and at 20 hours (150 mg,  $p=0.016$ ; 100 mg,  $p=0.025$ ) following study drug administration. Antiplatelet activity of elinogrel was sustained during the i.v. to oral transition and greater antiplatelet effect was achieved vs. clopidogrel during oral chronic administration. There were no TIMI major bleeding events in the acute 24 hour phase in either the clopidogrel or the 150 mg and 100 mg elinogrel treated patients, and only one TIMI minor bleeding event occurred in each of the elinogrel 150 mg and 100 mg arms. In the chronic phase between 24 hours and 120 days, bleeding events were low with no TIMI major and one TIMI minor bleeding event in the clopidogrel-treated patients and two TIMI major and no TIMI minor events in both the elinogrel 150 mg and 100 mg arms. There was a dose-dependent trend in the rate of lesser bleeds (bleeding requiring medical attention) with elinogrel during the peri-PCI period (3.9% for the clopidogrel arm vs. 6.6% and 9.0% for each of the pooled. i.v. doses). There were no significant differences in clinical efficacy at 24 hours or 120 days.

Bleeding is often used in Phase 2 studies as a marker for antithrombotic activity because cardiovascular event rates are low, particularly in a non-urgent PCI patient population. Accordingly, these results form the basis for dose selection for larger Phase 3 studies designed to confirm the clinical utility of elinogrel.

“The results of the INNOVATE-PCI trial showed that elinogrel has a desirable pharmacodynamic and tolerability profile that warrants further investigation in comprehensive Phase 3 trials,” said Dr. Daniel Gretler, Chief Medical Officer of Portola. “The plan is to evaluate the potential of elinogrel to prevent major cardiovascular events in patients with chronic coronary heart disease [CHD] and acute coronary syndrome [ACS], large patient populations in need of improved therapies.”

In INNOVATE-PCI, elinogrel was generally well tolerated with discontinuation rates comparable to those of clopidogrel. The incidence of dyspnea was higher in the elinogrel arms and was predominantly mild in nature and infrequently led to treatment discontinuation. Elevated liver enzymes associated with elinogrel occurred predominantly within the first 60 days and all resolved spontaneously even in patients for whom treatment was continued. There were no Hy's Law cases (a prognostic indicator of drug-induced liver injury). The incidence of bradycardia and heart block did not exceed that of clopidogrel.

### **About Elinogrel**

Elinogrel is an investigational compound that is the only competitive, reversible and direct-acting i.v. and oral P2Y<sub>12</sub> ADP receptor antagonist in development. Inhibiting the P2Y<sub>12</sub> ADP receptor on platelets has been proven to prevent thrombosis and subsequent heart attacks. Because of its properties, elinogrel has the potential to provide significant clinical advantages compared with clopidogrel, the current standard of care, by lowering the risk of ischemic events due to clot formation and reducing the risk of bleeding. In addition, elinogrel is the only molecule within the P2Y<sub>12</sub> ADP receptor antagonist class that offers both an oral and i.v. route of administration, offering the potential to be the antiplatelet of choice at all points in the treatment pathway.

Elinogrel is being developed to treat patients with chronic CHD and ACS -- diseases with significant unmet medical needs and considerable health and economic burdens.

### **About Portola Pharmaceuticals, Inc.**

Portola Pharmaceuticals develops innovative therapeutics based on targets with established proofs of concept that are designed to provide significant advances over current treatments for cardiovascular disease and inflammation. The company has global development and commercialization agreements with two of the world's leading pharmaceutical companies collectively valued at about \$1 billion in upfront and milestone payments plus double-digit royalties on future sales. Betrixaban, its oral direct Factor Xa inhibitor, is licensed to Merck & Co., Inc., and elinogrel, its competitive, reversible P2Y<sub>12</sub> ADP receptor antagonist, is licensed to Novartis Pharma AG. Both are Phase 2 product candidates that have features to address the global multi-billion dollar hospital, specialty and chronic care anticoagulant and antiplatelet markets, respectively.

Portola's proprietary pipeline programs are focused on the discovery and development of PRT061103, a thromboxane receptor antagonist, which is targeted to address a significant unmet need as a potential aspirin alternative for patients intolerant to aspirin; PRT064445, a Factor Xa inhibitor antidote to help manage or reverse the bleeding complications in the tens of millions of patients expected to be treated with Factor Xa inhibitors or low-molecular weight heparin worldwide in

the next decade; and PRT062607, a novel, oral Syk-specific kinase inhibitor to treat chronic inflammatory diseases, including rheumatoid arthritis, and certain cancers, including non-Hodgkin's lymphoma and chronic lymphocytic leukemia. For additional information, visit [www.portola.com](http://www.portola.com).

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