

# XOMA Provides Update from Ongoing Phase 2 XOMA 358 Clinical Studies

Results Demonstrate XOMA 358 Mechanism-of-Action in Rare Endocrine Conditions Company Plans to Advance XOMA 358 to Multi-dose Phase 2b Studies

BERKELEY, Calif., Sept. 15, 2016 (GLOBE NEWSWIRE) -- XOMA Corporation (Nasdaq:XOMA), a leader in the discovery and development of therapeutic antibodies, provided an update on its ongoing XOMA 358 Phase 2 studies in patients with severe hypoglycemia due to congenital hyperinsulinism (CHI) and post-bariatric surgery (PBS), two rare conditions resulting from abnormal insulin function. The following is a summary of its clinical progress related to XOMA 358 as reported in a webcast and conference call held earlier today.

"The initial data from the XOMA 358 Phase 2 clinical studies confirms that our first-in-class allosteric antibody is exhibiting an inhibition on insulin signaling, the desired mechanism-of-action. This means that for patients who are not able to properly regulate their high insulin levels and experience severe bouts of hypoglycemia, such as those diagnosed with congenital hyperinsulinism and certain post-bariatric surgery patients, XOMA 358 could provide benefit in preventing hypoglycemic episodes," stated John Varian, Chief Executive Officer of XOMA. "When we consider the totality of preclinical and clinical evidence, which demonstrates that XOMA 358 down-regulates insulin signaling by binding to the insulin receptor in an allosteric manner, we believe XOMA 358 is ready for advancement into Phase 2b multi-dose studies.

"I want to thank these patients for their willingness to participate in these studies," Mr. Varian concluded.

#### XOMA 358 Initial Combined Phase 2 Clinical Data

Patients act as their own control. To confirm their baseline status and participate in the ongoing Phase 2 studies, each patient must have two documented hypoglycemic events, captured by continuous glucose monitoring (CGM) or by supervised provocation by fast, protein challenge or meal test.

The ongoing CHI study is designed to evaluate the safety, pharmacokinetic, pharmacodynamics and biological activity of escalating doses of XOMA 358. Preliminary data from seven patients showed reduced duration and number of hypoglycemic episodes with increasing dose.

In the Phase 2 PBS study, XOMA 358 showed some effect on glucose and insulin tolerance in the face of a meal challenge at the initial dose of 3 mg/kg in two patients.

"We believe the most relevant efficacy measures are the duration of hypoglycemia and the number of hypoglycemic episodes. Although the number of patients dosed with XOMA 358 is small, both time spent in a hypoglycemic state, and number of hypoglycemic episodes decreased in a dose-dependent manner. We will continue to further confirm this type of drug effect in additional patients," commented Paul Rubin, MD, Senior Vice President Research and Development and Chief Medical Officer of XOMA. "The data from our ongoing Phase 2 study is helping us define the parameters that will give us the best opportunity for demonstrating efficacy in future studies, such as the use of continuous glucose monitoring to track glycemic profile on a continuous basis over days and weeks."

The update presented by the Company represents data from twenty-two healthy volunteers, seven CHI patients and two PBS patients receiving XOMA 358. XOMA 358 appears to be safe and well tolerated. Reported Treatment-Emergent Adverse Events were mostly mild and primarily related to insulin administration from the Insulin Tolerant Test in the Phase 1 trial. No Serious Adverse Events have been reported.

The Company anticipates enrolling a total of 12 to 15 CHI patients and up to 20 PBS patients with the majority tested at an active dose of XOMA 358.

A replay of the webcast, along with the slide presentation, can be accessed via the Investors and Media section of XOMA's website at <a href="http://investors.xoma.com/events.cfm">http://investors.xoma.com/events.cfm</a> and will be available for replay until close of business on December 15, 2016.

## **About XOMA Phase 2 Proof-of-Concept Studies**

The open-label, single-administration studies evaluate XOMA 358 in patients with congenital hyperinsulinism (CHI) and patients with hypoglycemia post-bariatric surgery (PBS). The CHI study is open for patient enrollment at the Children's Hospital of Philadelphia (CHOP), and clinical sites located in London, England and in Magdeburg, Germany. The PBS study is open for enrollment at Johns Hopkins University in Baltimore, the Joslin Clinic in Boston and the Mayo Clinic in Rochester, MN. Additional sites are expected to open in the coming months.

In addition to monitoring safety throughout the studies, serial blood samples are being collected for pharmacokinetic and pharmacodynamic assessments. Various markers of drug activity are being assessed, including changes in glucose, ketones, insulin, C-peptide and free fatty acid levels. Controlled tests include monitored fasts, protein challenges, and oral glucose tolerance.

### **About XOMA 358**

Insulin is the major physiologic hormone for controlling blood glucose levels. Abnormal increases in insulin secretion can lead to profound hypoglycemia (low blood sugar), a state that can result in significant morbidities, including brain damage, seizures and epilepsy. XOMA, leveraging its scientific expertise in allosteric monoclonal antibodies, developed the XMet platform, consisting of separate classes of selective insulin receptor modulators (SIRMs) that could have a major effect on treating patients with abnormal metabolic states.

XOMA 358 is a fully human negative allosteric modulating insulin receptor antibody derived from the XMet platform. It is being investigated as a novel treatment for non-drug-induced, endogenous hyperinsulinemic hypoglycemia (low blood glucose caused by excessive insulin production), as well as hypoglycemia after bariatric surgery and other related disorders.

# About Congenital Hyperinsulinismi, ii, iii, iv

Congenital Hyperinsulinism (CHI) is a genetic disorder in which the insulin cells of the pancreas (beta cells) secrete inappropriate and excessive insulin. Ordinarily, beta cells secrete just enough insulin to keep blood sugar in the normal range. In people with CHI, the secretion of insulin is not properly regulated, causing excess insulin secretion and frequent episodes of low blood sugar (hypoglycemia). In infants and young children, these episodes are characterized by a lack of energy (lethargy), irritability or difficulty feeding. Repeated episodes of low blood sugar increase the risk for serious complications, such as breathing difficulties, seizures, intellectual disability, vision loss, brain damage, coma, and possibly death. About 60 percent of infants with CHI experience a hypoglycemic episode within the first month of life. Other affected children develop hypoglycemia by early childhood. Current treatments for CHI are limited to medical therapy and surgical removal of part or all of the pancreas (pancreatectomy).

## **About Hypoglycemia Post Gastric Bypass Surgery**

As the number of gastric bypass surgeries to treat severe obesity has increased, so too has the awareness that this population may experience postprandial hypoglycemia (low blood glucose following a meal) with symptoms developing months or years following the gastric bypass surgery. Postprandial hypoglycemia occurs with a range of severity in post-gastric bypass patients. The mild end of the spectrum may be managed largely through diet modification. The most severe forms are more prevalent in patients who underwent a Roux-en-Y procedure, and result in severe refractory postprandial hyperinsulinemic hypoglycemia with neuroglycopenic symptoms (altered mental status, loss of consciousness, seizures) that cannot be managed through diet modification. If currently available pharmacologic agents do not resolve the condition, these patients are treated with either a partial pancreatectomy or reversal of the gastric bypass.

## **About XOMA Corporation**

XOMA Corporation is a leader in the discovery and development of therapeutic antibodies. The Company's innovative product candidates result from its expertise in developing ground-breaking monoclonal antibodies, including allosteric antibodies, which have created new opportunities to potentially treat a wide range of human diseases. XOMA's scientific research has produced a portfolio of five endocrine assets, each of which has the opportunity to address multiple indications. The Company's lead product candidate, XOMA 358, is an allosteric monoclonal antibody that reduces insulin receptor activity, which could have a major impact on the treatment of hyperinsulinism. The Company initiated Phase 2 development activities for XOMA 358 in patients with congenital hyperinsulinism, and in patients with hypoglycemia after bariatric surgery. For more information, visit www.xoma.com.

## **Forward-Looking Statements**

Certain statements contained in this press release are forward-looking statements within the

meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements regarding: our belief that XOMA 358 is ready to advance into Phase 2b multi-dose studies, the future progress of the XOMA 358 clinical program, future product development plans, the medical need and market demand for XOMA 358, the design of future clinically relevant studies, anticipated future study sites and enrollments, possible increases in magnitude of response as new study participants are added and dosages increased, dose-dependent benefits on duration and frequency of hypoglycemia, the responses to be seen in future study subjects, the possible expansion of clinical testing to younger patients, the overall promise of XOMA 358, and statements that otherwise relate to future periods. These statements are based on assumptions that may not prove accurate, and actual results could differ materially from those anticipated due to certain risks inherent in the biotechnology industry and for companies engaged in the development of new products in a regulated market. Potential risks to XOMA meeting these expectations are described in more detail in XOMA's most recent filing on Form 10-K and in other SEC filings. Consider such risks carefully when considering XOMA's prospects. Any forward-looking statement in this press release represents XOMA's views only as of the date of this press release and should not be relied upon as representing its views as of any subsequent date. XOMA disclaims any obligation to update any forward-looking statement, except as required by applicable law.

<sup>i</sup> ghr.nlm.nih.gov/condition/congenital-hyperinsulinism.

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Source: XOMA Ltd.

ii www.chop.edu/conditions-diseases/congenital-hyperinsulinism/about#.VXncFU3bKHt.

iii www.chop.edu/conditions-diseases/congenital-hyperinsulinism/about#.VXneYE3bKHu.

iv www.ojrd.com/content/pdf/1750-1172-6-63.pdf.