ObsEva Presents Pharmacology Data Showing that OBE002, the First Orally Active Prostaglandin F2α Antagonist, is devoid of the side effects associated with NSAID treatment of Preterm Labor

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Geneva, Switzerland, 04 November 2015 – ObsEva, a Swiss biopharmaceutical company developing a novel generation of drugs addressing serious conditions compromising pregnancy from conception to birth, presented today the data of in-vivo pharmacology studies with preterm labor compound, OBE002, a novel orally active prostaglandin $F_{2\alpha}$ receptor antagonist. Prostaglandins play an essential role in term and preterm labor. Tocolysis with non-steroidal anti-inflammatory drugs (NSAID), which inhibit prostaglandin synthesis, is an effective treatment for preterm labor. However, use of NSAIDs is limited to 48 hours because of neonatal acute renal failure or irreversible end-stage renal failure after maternal ingestion and is further complicated by in utero constriction of the foetus ductus arteriosus. In utero closure of the ductus arteriosus in fetal rats. OBE002 was compared to the NSAID, Indomethacin, which is commonly used in preterm labor. The results of the pharmacology studies have been presented today at the 12th World Congress of Perinatal Medicine in Madrid, Spain.

"OBE002 is a first in class, orally active, prostaglandin $F_{2\alpha}$ antagonist developed for the treatment of preterm labor. The therapeutic benefit of prostaglandin inhibition in preterm labor is well established with NSAIDs but their use is limited by safety. Thus demonstrating the absence of treatment-limiting NSAID adverse effects was essential for OBE002. The results of these pharmacology studies constitute an important step towards the development of OBE002 in preterm labor" stated Ernest Loumaye, CEO and Co-Founder of ObsEva.

The newborn rabbit kidney study compared the effects of placebo, OBE002 and Indomethacin on renal function and hemodynamic parameters in-vivo. While indomethacin treatment resulted in markedly increased renal vascular resistance with a concomitant decrease in diuresis, glomerular filtration rate and renal blood flow, no significant effects were observed for OBE002 and placebo.

The potential of placebo, OBE002 or Indomethacin to constrict the ductus arteriosus was evaluated in rat fetuses on the last day of gestation. Near-term rats were treated and constriction of the ductus was graded macroscopically four hours after treatment in the fetuses. OBE002 or placebo, did not constrict the fetal ductus, whereas it was constricted in two thirds of indomethacin treated rats.

"Our data suggests that the use of a selective prostaglandin $F_{2\alpha}$ antagonist such as OBE002 as tocolytic agent is devoid of the safety limitations of NSAIDs at the kidney level and the ductus arteriosus and can represent a new modality for the treatment of preterm labor." said Oliver Pohl, Senior Director Non-Clinical Development and Phase 1 of ObsEva.

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About Preterm Labor

According to The Global Action Report on Preterm Birth "Born Too Soon" issued by World Health Organization in 2012, 15 million babies are born too soon (born before 37 weeks of gestation) every year. This represents more than 1 in 10 babies worldwide. Over 1 million children die each year due to complications of preterm birth and many survivors face a lifetime of disability. The rates of preterm births are rising in almost all countries and are associated with an important financial burden to the society. The annual healthcare costs associated with preterm births was estimated in 2005 at approximately 27 billion USD in the USA. Costs after the neonatal period for lifetime medical & special services reach more than 500 thousand USD per premature handicapped child. Preterm labor is characterized by premature uterus contractions leading to birth before 37 weeks of gestation.

About OBE002

OBE002 is a first-in-class, orally active, small molecule PGF2a receptor antagonist. Inhibition of PGF2a receptor is a new modality for treating preterm labor as it has the potential not only to suppress uterine contractility but also to prevent cervical changes resulting from preterm labor, and to inhibit inflammation. For additional information, please visit www.ObsEva.com

About ObsEva

ObsEva is a clinical stage biopharmaceutical company focusing on the development of a novel generation of drugs addressing serious conditions compromising pregnancy from conception to birth. Our lead programs target the underserved problems of infertility and preterm labor affecting more and more women worldwide. The ObsEva team's unique development expertise is supported by top-tier investors in order to build a leading company in pregnancy pharmaceuticals. <u>www.ObsEva.com</u>

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