

CO-002 - POSITIVE RESULTS FROM REGENERATE: A PHASE 3 INTERNATIONAL, RANDOMIZED, PLACEBO-CONTROLLED STUDY EVALUATING OBETICHOLIC ACID TREATMENT FOR NASH

Helena Cortez-Pinto¹; Zobair Yonoussi³; Vlad Ratziu²; Rohit Loomba⁴; Mary Rinella⁵; Quentin Anstee⁶; Zachary Goodman³; Pierre Bedossa⁷; Andreas Geier⁸; Susanne Beckebaum⁹; Philip Newsome¹⁰; David Sheridan¹¹; James Trotter¹²; Whitfield Knapple¹³; Eric Lawitz¹⁴; Kris Kowdley¹⁵; Aldo Montano-Loza¹⁶; Jerome Boursier¹⁷; Philippe Mathurin¹⁸; Elisabetta Bugianesi¹⁹; Guiseppe Mazzella²⁰; Antonio Olveira²¹; Isabel Graupera²²; David Orr²³; Lise Lotte Gluud²⁴; Jean-François Dufour²⁵; David Shapiro²⁶; Jason Campagna²⁶; Luna Zar²⁶; Leigh Macconell²⁶; Reshma Shringarpure²⁶; Stephen Harrison²⁷; Arun Sanyal²⁸ 1 - Clínica Universitária de Gastrenterologia, Faculdade de Medicina, Universidade de Lisboa,; 2 -Sorbonne Université, Hôpital Pitié – Salpêtrière, Paris, France; 3 - Betty and Guy Beatty Center for Integrated Research, Inova Health System, Falls Church, United States; 4 - University of California, San Diego, San Diego, United States; 5 - Feinberg School of Medicine, Northwestern University, Chicago, United States; 6 - Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, United Kingdom; 7 - Service d'Anatomie Pathologique, Hôpital Beaujon, Assistance Publique-Hôpitaux de Paris, Paris, France; 8 - University of Wuerzburg, Wuerzburg, Germany; 9 - St. Josef-Krankenhaus Kupferdreh, Essen, Germany; 10 - University of Birmingham, Birmingham, United Kingdom; 11 - Derriford Hospital, Plymouth, United Kingdom; 12 - Baylor Health, Liver Consultants of Texas, Dallas, United States; 13 -Arkansas Gastroenterology, North Little Rock, United States; 14 - Texas Liver Institute, University of Texas Health San Antonio, San Antonio, United States; 15 - Swedish Liver Center, Seattle, United States; 16 - Division of Gastroenterology and Liver Unit, University of Alberta, Edmonton, Canada; 17 - Angers University Hospital, Angers, France; 18 - Hepato-gastroenterology, CHU Lille, Lille, France; 19 - University of Turin, Turin, Italy; 20 - University of Bologna, Bologna, Italy; 21 - Hospital Universitario La Paz, Madrid, Spain; 22 - Hospital Clinic de Barcelona, Barcelona, Spai; 23 - Auckland City Hospital, Auckland, New Zealand; 24 - Copenhagen University Hospital Hvidovre, Hvidovre, Denmark; 25 - University of Bern, Bern, Switzerland; 26 - Intercept Pharmaceuticals, San Diego, United States; 27 - Pinnacle Clinical Research Center, San Antonio, United States; 28 - Virginia Commonwealth University, Richmond, United States

Introduction:Obeticholic acid (OCA), an FXR agonist, improved both fibrosis and histologic features of nonalcoholic steatohepatitis (NASH) in the Ph2 FLINT study. This Month 18 pre-specified interim analysis of the ongoing Ph3 REGENERATE study evaluated the effect of OCA on liver histology in patients (pts) with biopsy-confirmed NASH.

Methods:Pts with NASH and fibrosis stages F2-3 (ITT), and an exploratory group of F1 pts with metabolic syndrome, were randomized to placebo (PBO), OCA 10mg, or OCA 25mg QD. Primary endpoints were fibrosis improvement (\geq 1 stage) with no worsening of NASH, or NASH resolutionwith no worsening of liver fibrosis. The safety population included all randomized and dosed pts (F1-3, N=1968). Clinical outcomes will be evaluated at the end-of-study.

Results:ITT population included 931 pts (PBO [n=311], OCA 10mg [n=312] or OCA 25mg [n=308]), comprised of 44% F2 and 56% F3. Baseline characteristics were well-balanced across groups. The primary fibrosis endpoint was met by 11.9% PBO, 17.6% OCA 10mg (p=0.0446), and 23.1% OCA 25mg (p=0.0002) pts (ITT). The primary NASH endpoint was not statistically significant (ITT); however, in a prespecified analysis that included F1-F3 pts (N=1218), more OCA 25mg pts achieved NASH resolution. Pruritus was the most common AE (19% PBO, 28% OCA 10mg, 51% OCA 25mg) and was predominantly mild to moderate in severity. More OCA 25mg pts discontinued due to pruritus (<1% PBO, <1% OCA 10mg, 9% OCA 25mg; protocol mandated discontinuation of treatment with severe







pruritus). SAEs occurred in 11% PBO, 11% OCA 10mg and 14% OCA 25mg pts. Three deaths occurred; none were considered treatment-related (PBO n=2; OCA 25mg n=1).

Conclusion: Treatment with OCA 25mg improved liver fibrosis, key histologic features of steatohepatitis and liver biochemistry, demonstrating consistent efficacy with an overall AE profile similar to previous studies.





