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FIRST IN HUMAN TRIAL OF IMU-856, AN ORALLY AVAILABLE EPIGENETIC MODULATOR OF BARRIER REGENERATION FOR THE TREATMENT OF CELIAC DISEASE

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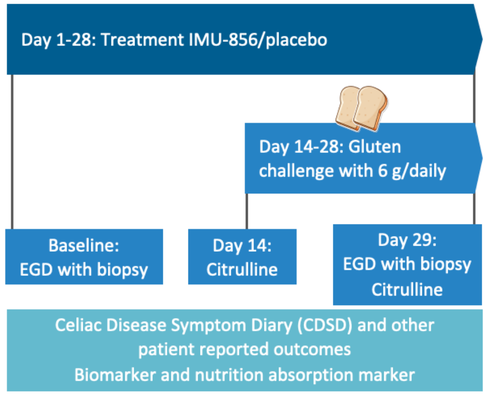
Mechanism of action of IMU-856

- IMU-856 is a highly selective and potent modulator of the epigenetic regulator SIRT6 (Sirtuin 6)
- IMU-856 improves quality and function of bowel epithelium through activation of physiological (gut) regeneration
- IMU-856 enhances intestinal barrier function by modulating tight junction proteins
- IMU-856 has no known immuno-suppressive effects

Overview of IMU-856 phase 1b clinical trial in celiac disease

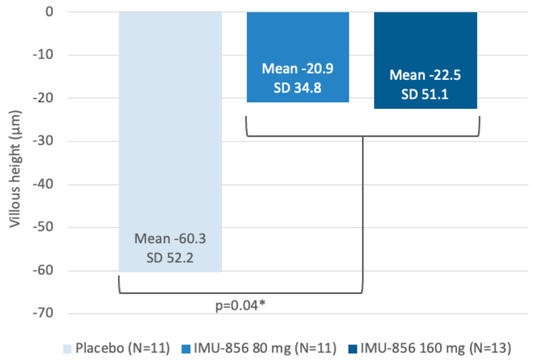
Figure 1: Flow chart of IMU-856 double-blind, randomized, placebo controlled Phase 1b trial.



- IMU-856 Phase 1b trial designed to include a well-controlled celiac disease patient population
- 28 days of dosing (80mg or 160mg IMU-856 QD)
- 15 days of gluten challenge (6g gluten/daily)
- N enrolled/completed = 43/35 patients (IMU-856: N=29/24)
- Performed at sites in Australia and New Zealand
- Designed to assess safety, tolerability, pharmacodynamics and pharmacokinetics of IMU-856
- Measured histologic changes, blood bio-markers, nutrient uptake and disease-related symptoms

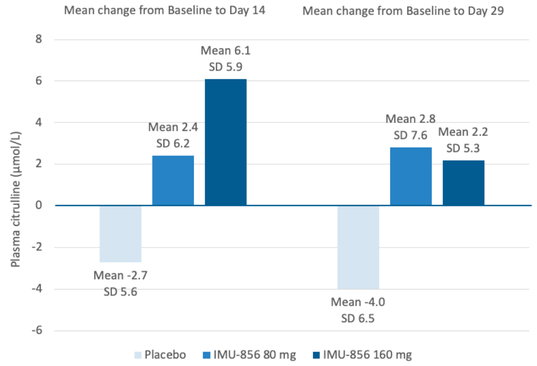
Proof-of-concept study: positive results from IMU-856 phase 1b clinical trial

Figure 2: IMU-856 protected against gluten-induced intestinal epithelial damage by substantially and significantly reducing the decrease in villous height as compared to placebo.



• *Wilcoxon Two-Sample Test comparison between pooled IMU-856 groups and placebo, performed as post-hoc exploratory statistical analysis.*

Figure 3: IMU-856 improved plasma citrulline levels (biomarker for enterocyte health) already within the first 2 weeks prior to gluten challenge. This improvement was further maintained throughout the trial including a 15-day gluten challenge.



Number of Patients: Placebo: N=13 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 80 mg: N=14 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 160 mg: N=13 for Mean Change Baseline to Day 14, N=13 for Mean Change Baseline to Day 29.

Figure 4: IMU-856 showed enhanced nutrient absorption as exemplified by Vitamin B12 levels.

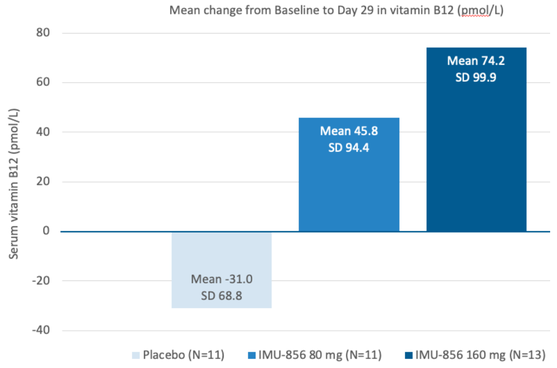
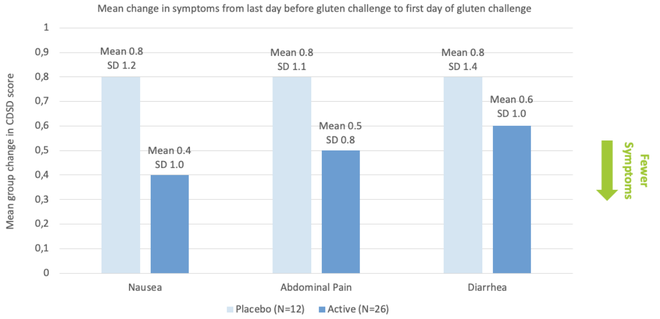


Figure 5: IMU-856 dampened gluten-induced acute symptoms as assessed by Celiac Disease Symptom Diary (CDSD).



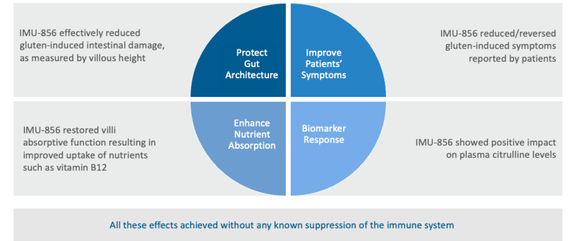
Safety Summary of IMU-856

IMU-856 shown to be safe and well-tolerated

- No dose-dependency in adverse events
- No IMP-related severe treatment-emergent adverse events
- No IMP-related serious adverse events
- No trend in post-dose changes in laboratory parameters
- No clinically relevant changes in vital signs, physical examination or ECG parameters

Conclusions

Figure 6: IMU-856 showed positive effects in the main four dimensions of clinical outcome.



All authors apart from James Daveson are/were employed by Immunic AG

Abbr.: EGD: esophagogastroduodenoscopy; QD: quaque die = once-daily; SD: standard deviation; IMP: investigational medicinal product; ECG: electrocardiogram

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