

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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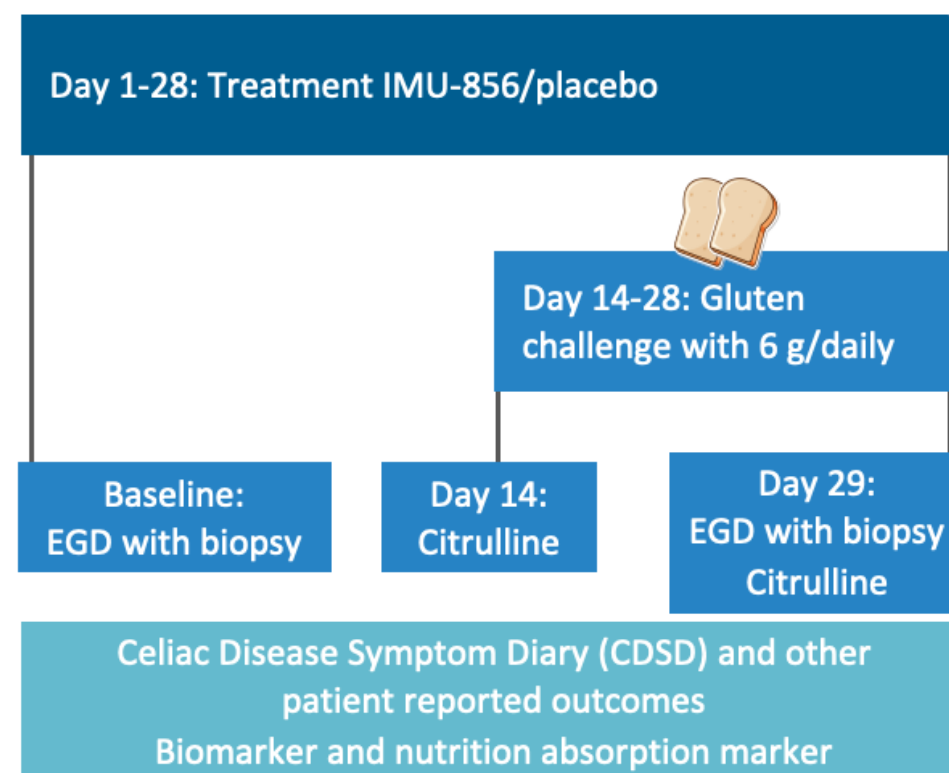
Mechanism of action of IMU-856

- 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 immunosuppressive effects

- 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 biomarkers, nutrient uptake and disease-related symptoms

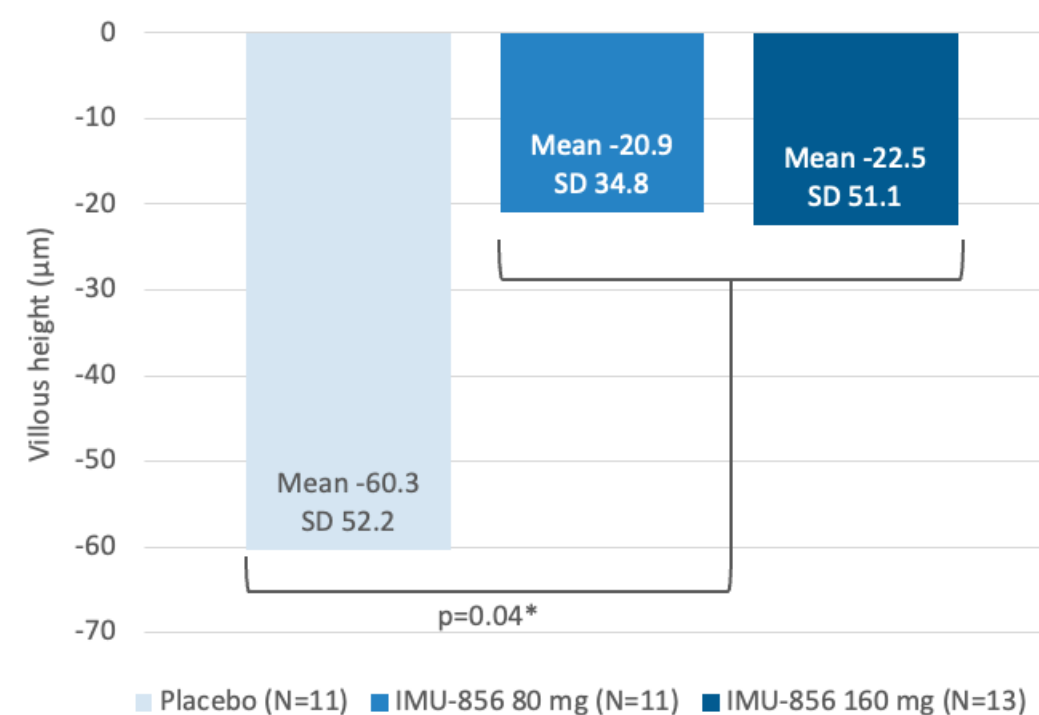
Overview of IMU-856 phase 1b clinical trial in celiac disease

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



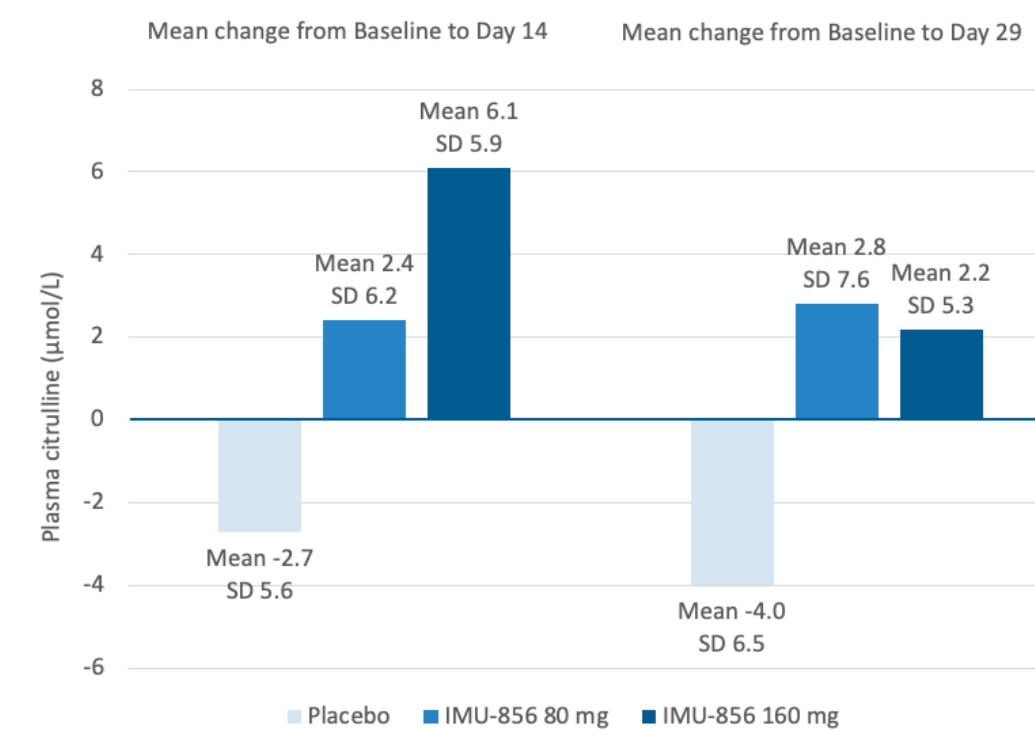
Proof-of-concept study: positive results from IMU-856 phase 1b clinical trial

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.



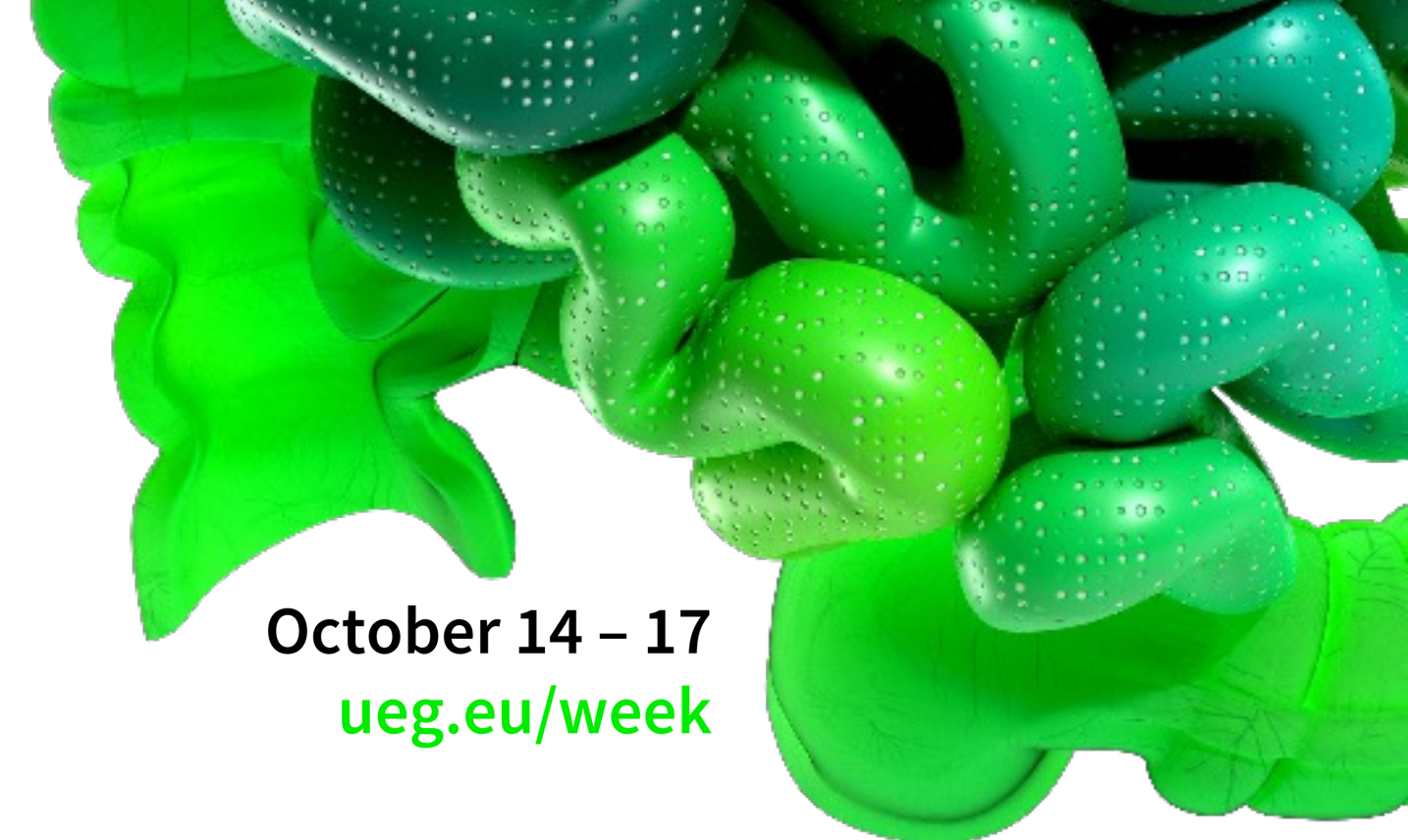
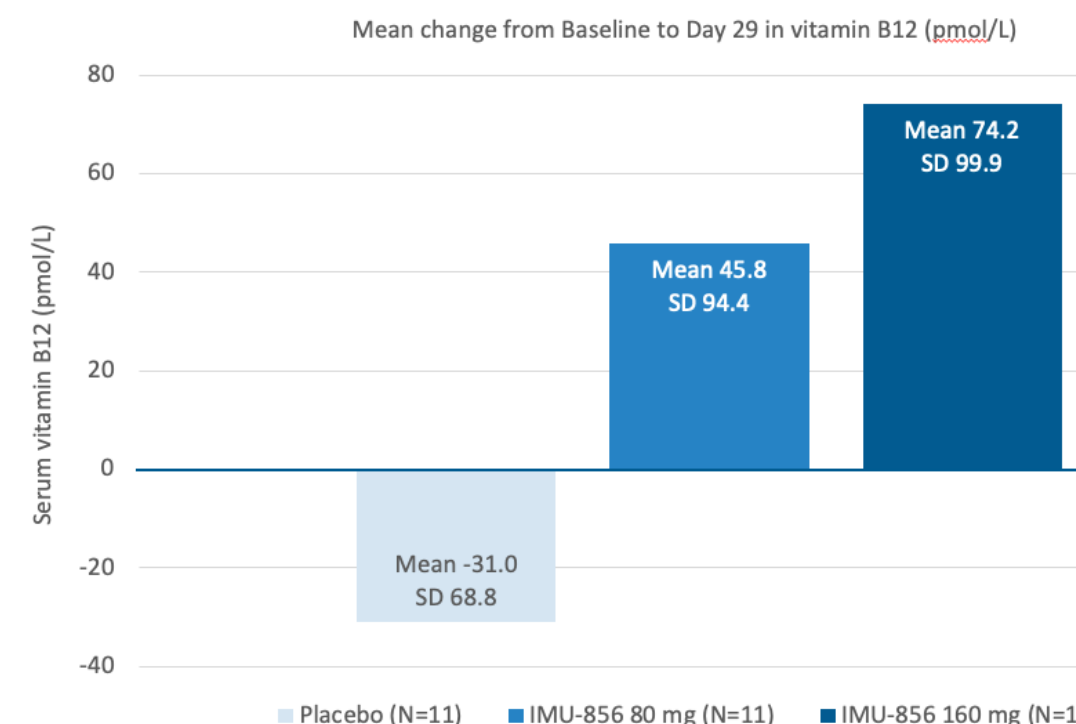
* Wilcoxon Two-Sample Test comparison between pooled IMU-856 groups and placebo, performed as post-hoc exploratory statistical analysis.

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.



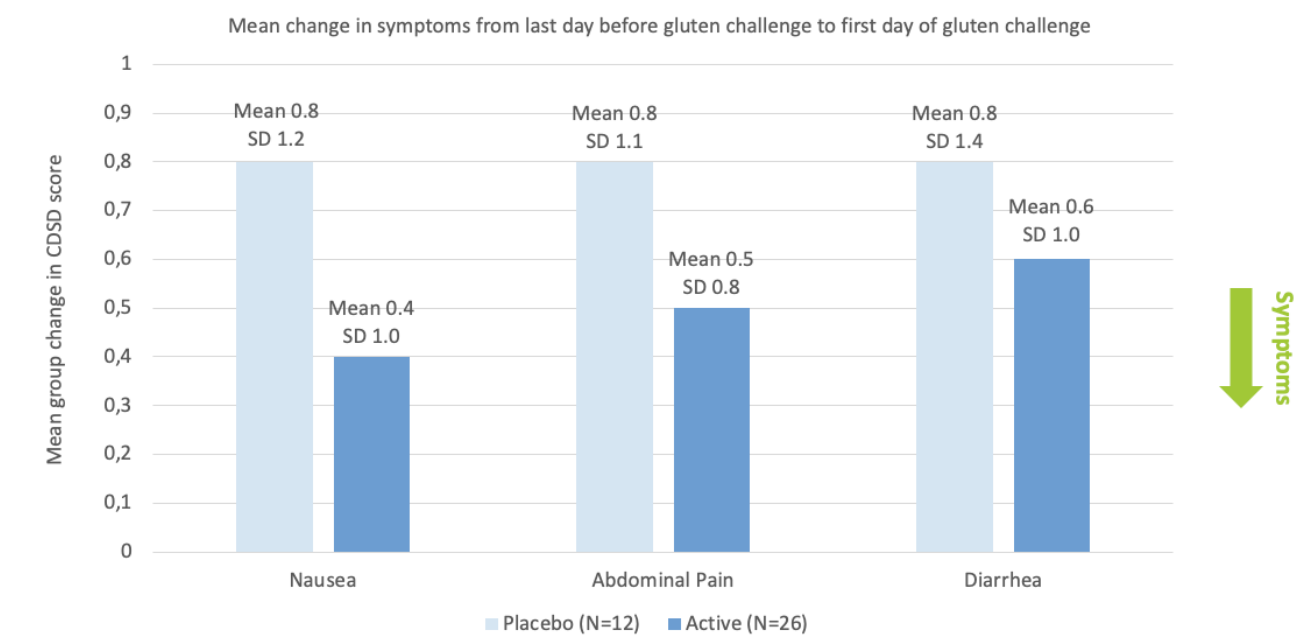
Number of Patients: Placebo: N=13 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 80 mg: N=14 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 160 mg: N=13 for Mean Change Baseline to Day 14, N=13 for Mean Change Baseline to Day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

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



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



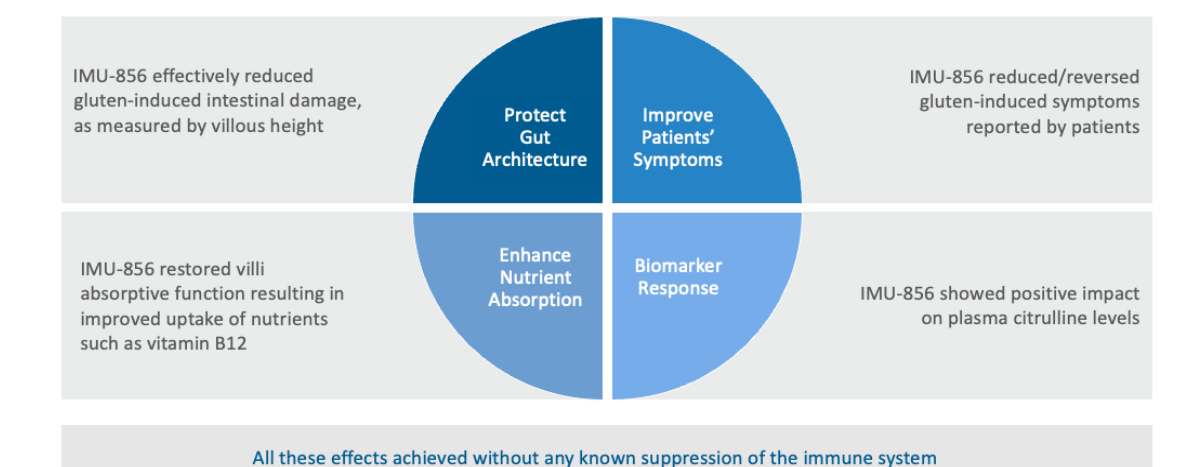
Safety Summary of IMU-856

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 these effects achieved without any known suppression of the immune system

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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