

## SUPPLEMENTARY TABLES

**Supplementary table 1: missing data for the study population.**

|                                    | IBD baseline<br>(n = 130) | IBD week 6<br>(n = 127) | IBD week 14<br>(n = 122) | Controls<br>(n = 50) |
|------------------------------------|---------------------------|-------------------------|--------------------------|----------------------|
| Age (years)                        | 0 (0%)                    | —                       | —                        | 0 (0%)               |
| Gender (female/male)               | 0 (0%)                    | —                       | —                        | 0 (0%)               |
| BMI (kg/m <sup>2</sup> )           | 12 (9.2%)                 | —                       | —                        | 0 (0%)               |
| Disease duration (years)           | 0 (0%)                    | —                       | —                        | —                    |
| Montreal A (age at diagnosis)      | 0 (0%)                    | —                       | —                        | —                    |
| Montreal L (disease location)      | 0 (0%)                    | —                       | —                        | —                    |
| Montreal L4 (upper GI-involvement) | 0 (0%)                    | —                       | —                        | —                    |
| Montreal B (disease behavior)      | 0 (0%)                    | —                       | —                        | —                    |
| Montreal p (perianal disease)      | 0 (0%)                    | —                       | —                        | —                    |
| Montreal E (disease extension)     | 1 (1.6%)*                 | —                       | —                        | —                    |
| Montreal S (disease severity)      | 3 (4.9%)*                 | —                       | —                        | —                    |
| History of smoking                 | 12 (9.2%)                 | —                       | —                        | —                    |
| Proton-pump inhibitor use          | 0 (0%)                    | —                       | —                        | 50 (100%)            |
| Biliary comorbidities              | 0 (0%)                    | —                       | —                        | —                    |
| Arthritis                          | 0 (0%)                    | —                       | —                        | —                    |
| History of colectomy               | 0 (0%)                    | —                       | —                        | —                    |
| History of ileocecal resection     | 0 (0%)                    | —                       | —                        | —                    |
| Aminosalicylates                   | 0 (0%)                    | —                       | —                        | —                    |
| Steroids                           | 0 (0%)                    | —                       | —                        | —                    |
| Immunomodulators                   | 0 (0%)                    | —                       | —                        | —                    |
| Recent iron therapy                | 0 (0%)                    | —                       | —                        | —                    |
| Biological naive                   | 0 (0%)                    | —                       | —                        | —                    |
| Radiologic activity                | 53 (76.8%)*               | —                       | 67 (97.1%)*              | —                    |
| Endoscopic activity                | 58 (44.6%)                | —                       | 112 (86.2%)              | —                    |
| Mayo score                         | 20 (32.8%)*               | —                       | 54 (94.7%)*              | —                    |
| SES-CD score                       | 45 (65.2%)*               | —                       | 63 (96.9%)*              | —                    |
| HBI                                | 27 (39.1%)*               | —                       | 20 (30.8%)               | —                    |
| SCCAI                              | 41 (67.2%)*               | —                       | 31 (54.4%)               | —                    |
| Hemoglobin (mmol/L)                | 1 (0.8%)                  | 3 (2.4%)                | 5 (4.1%)                 | —                    |
| MCV (fL)                           | 2 (1.5%)                  | 3 (2.4%)                | 5 (4.1%)                 | 0 (0%)               |
| Iron (μmol/L)                      | 1 (0.8%)                  | 2 (1.6%)                | 3 (2.5%)                 | 0 (0%)               |
| Ferritin (μg/L)                    | 0 (0%)                    | 2 (1.6%)                | 3 (2.5%)                 | 2 (4.0%)             |
| TIBC (μmol/L)                      | 1 (0.8%)                  | 2 (1.6%)                | 3 (2.5%)                 | 2 (4.0%)             |
| Transferrin (g/L)                  | 4 (3.1%)                  | 4 (3.1%)                | 4 (3.3%)                 | 2 (4.0%)             |
| TSAT (%)                           | 3 (2.3%)                  | 1 (0.8%)                | 3 (2.5%)                 | 2 (4.0%)             |
| ESR (mm/hour)                      | 3 (2.3%)                  | 6 (4.7%)                | 4 (3.3%)                 | 50 (100%)            |
| CRP (mg/L)                         | 1 (0.8%)                  | 2 (1.6%)                | 3 (2.5%)                 | 0 (0%)               |
| WBC (x 10 <sup>9</sup> /L)         | 0 (0%)                    | 2 (1.6%)                | 3 (2.5%)                 | 0 (0%)               |
| Neutrophils (x 10 <sup>9</sup> /L) | 2 (1.5%)                  | 7 (5.5%)                | 5 (4.1%)                 | 0 (0%)               |
| Platelets (x 10 <sup>9</sup> /L)   | 2 (1.5%)                  | 3 (2.4%)                | 5 (4.1%)                 | 0 (0%)               |
| Creatinine (μmol/L)                | 1 (0.8%)                  | 2 (1.6%)                | 3 (2.5%)                 | 0 (0%)               |
| eGFR (ml/min x 1.73 <sup>2</sup> ) | 3 (2.3%)                  | 3 (2.4%)                | 5 (4.1%)                 | 0 (0%)               |
| LDH (U/L)                          | 4 (3.1%)                  | 5 (3.9%)                | 4 (3.3%)                 | 0 (0%)               |
| Albumin (g/L)                      | 2 (1.5%)                  | 5 (3.9%)                | 4 (3.3%)                 | 0 (0%)               |
| FCP (mg/kg)                        | 61 (46.9%)                | —                       | 84 (64.6%)               | —                    |

Data are presented as proportions n with corresponding percentages (%). IBD: Inflammatory Bowel Disease, HBI: Harvey-Bradshaw Index, SCCAI: Simple Clinical Colitis Activity Index, SES-CD: Simple Endoscopic Score for Crohn's Disease, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin. \*: percentage out of the applicable study subgroup, i.e. either Crohn's disease group or ulcerative colitis group.

**Supplementary table 2. Biomarker detection rates.**

| <b>Biomarker</b>        | <b>LLoD</b> | <b>ULoD</b> | <b>Detection rate (%)</b> | <b>Extrapolated values (%)</b> |
|-------------------------|-------------|-------------|---------------------------|--------------------------------|
| <b>Hepcidin</b> (pg/mL) | 15.60       | 1000.00     | 99.67%                    | 1.34%                          |
| <b>cFGF-23</b> (pmol/L) | 0.00        | 20.00       | 98.33%                    | 0.67%                          |
| <b>iFGF-23</b> (pg/mL)  | 0.00        | 1600.00     | 100.00%                   | 28.09%                         |
| <b>sTfR</b> (μg/mL)     | 0.05        | 2.00        | 100.00%                   | 2.68%                          |
| <b>IL-1β</b> (pg/mL)    | 0.15        | 3820.00     | 50.00%                    | 59.33%                         |
| <b>IL-6</b> (pg/mL)     | 0.33        | 1980.00     | 91.33%                    | 13.87%                         |
| <b>IL-10</b> (pg/mL)    | 0.14        | 3720.00     | 100.00%                   | 57.67%                         |
| <b>IL-22</b> (pg/mL)    | 0.13        | 3420.00     | 100.00%                   | 34.67%                         |
| <b>IL-23</b> (pg/mL)    | 1.40        | 21600.00    | 60.00%                    | 54.44%                         |
| <b>TNFα</b> (pg/mL)     | 0.51        | 3650.00     | 100.00%                   | 13.00%                         |
| <b>INF-γ</b> (pg/mL)    | 1.70        | 17000.00    | 93.67%                    | 25.27%                         |
| <b>EPO</b> (pg/mL)      | 1.80        | 20000.00    | 100.00%                   | 0.00%                          |
| <b>MIP-3α</b> (pg/mL)   | 1.80        | 20800.00    | 94.33%                    | 12.01%                         |
| <b>VEGF-A</b> (pg/mL)   | 2.00        | 4920.00     | 100.00%                   | 0.00%                          |
| <b>R-SH</b> (uM)        | 15.60       | 1000.00     | 100.00%                   | 0.00%                          |

*LLoD: lower limit of detection; ULoD: upper limit of detection. cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor; IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols.*

**Supplementary table 3. Predictors for iron-deficiency anemia at baseline in patients with IBD.**

|  | IRON-DEFICIENCY ANEMIA     |         |                              |         |
|--|----------------------------|---------|------------------------------|---------|
|  | Univariable<br>OR (95% CI) | P-value | Multivariable<br>OR (95% CI) | P-value |
| Gender (reference male)                  | 0.80 (0.38–1.71)           | 0.57    |                              |         |
| Age                                      | 0.97 (0.95–1.00)           | 0.06    |                              |         |
| BMI                                      | 0.91 (0.84–0.99)           | < 0.05  |                              |         |
| <b>Inflammation</b>                      |                            |         |                              |         |
| Log <sub>2</sub> FCP                     | 1.32 (0.96–1.32)           | 0.09    |                              |         |
| Log <sub>2</sub> ESR                     | 1.28 (0.97–1.69)           | 0.08    |                              |         |
| Log <sub>2</sub> CRP                     | 1.15 (0.94–1.41)           | 0.17    |                              |         |
| Log <sub>2</sub> Leukocytes              | 0.42 (0.20–0.89)           | < 0.05  |                              |         |
| Log <sub>2</sub> Neutrophils             | 0.64 (0.36–1.14)           | 0.13    |                              |         |
| Log <sub>2</sub> Platelets               | 1.38 (0.51–3.72)           | 0.53    |                              |         |
| Log <sub>2</sub> Free thiols             | 0.14 (0.05–0.46)           | < 0.01  | 0.10 (0.03–0.39)             | < 0.01  |
| Log <sub>2</sub> IL-1 $\beta$            | 1.32 (0.95–1.84)           | 0.10    |                              |         |
| Log <sub>2</sub> IL-6                    | 1.30 (0.99–1.72)           | 0.06    |                              |         |
| Log <sub>2</sub> IL-10                   | 1.04 (0.77–1.41)           | 0.80    |                              |         |
| Log <sub>2</sub> IL-22                   | 1.01 (0.76–1.36)           | 0.92    |                              |         |
| Log <sub>2</sub> IL-23                   | 1.44 (1.02–2.03)           | < 0.05  |                              |         |
| Log <sub>2</sub> TNF $\alpha$            | 0.94 (0.59–1.50)           | 0.81    |                              |         |
| Log <sub>2</sub> INF- $\gamma$           | 1.05 (0.69–1.30)           | 0.69    |                              |         |
| <b>Iron status</b>                       |                            |         |                              |         |
| Log <sub>2</sub> Hepcidin                | 0.78 (0.63–0.96)           | < 0.05  |                              |         |
| Log <sub>2</sub> Iron                    | 0.55 (0.34–0.91)           | < 0.05  |                              |         |
| Log <sub>2</sub> Ferritin                | 0.54 (0.38–0.75)           | < 0.001 | 0.52 (0.35–0.76)             | < 0.01  |
| Log <sub>2</sub> Transferrin             | 1.20 (0.27–5.42)           | 0.81    |                              |         |
| Log <sub>2</sub> TIBC                    | 1.44 (0.34–6.21)           | 0.62    |                              |         |
| Log <sub>2</sub> TSAT                    | 0.54 (0.33–0.88)           | < 0.05  |                              |         |
| <b>Hypoxia and erythropoiesis</b>        |                            |         |                              |         |
| Log <sub>2</sub> EPO                     | 1.95 (1.24–3.07)           | < 0.01  | 2.24 (1.31–3.84)             | < 0.01  |
| Log <sub>2</sub> VEGF-A                  | 0.73 (0.50–1.05)           | 0.09    |                              |         |
| Log <sub>2</sub> MIP-3 $\alpha$          | 1.25 (0.94–1.67)           | 0.13    |                              |         |
| Log <sub>2</sub> sTfR                    | 1.88 (0.92–3.84)           | 0.08    |                              |         |
| Log <sub>2</sub> sTfR/log Ferritin index | 2.33 (1.33–4.08)           | < 0.01  |                              |         |
| Log <sub>2</sub> cFGF 23                 | 1.20 (0.88–1.64)           | 0.25    |                              |         |
| Log <sub>2</sub> iFGF 23                 | 0.94 (0.66–1.35)           | 0.75    |                              |         |
| Log <sub>2</sub> c/iFGF ratio            | 1.16 (0.91–1.47)           | 0.24    |                              |         |
| <b>Other parameters</b>                  |                            |         |                              |         |
| MCV                                      | 0.94 (0.88–1.01)           | 0.07    |                              |         |
| Log <sub>2</sub> LDH                     | 0.45 (0.17–1.14)           | 0.09    |                              |         |
| Albumin                                  | 0.92 (0.82–1.04)           | 0.18    |                              |         |

For log<sub>2</sub> transformed variables Odds Ratios (OR) represent the increase or decrease in risk of iron-deficiency anemia if the value of the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.

**Supplementary table 4. Predictors for iron deficiency at baseline in patients with IBD.**

|   | IRON DEFICIENCY            |                   |                              |                   |
|---|----------------------------|-------------------|------------------------------|-------------------|
|   | Univariable<br>OR (95% CI) | P-value           | Multivariable<br>OR (95% CI) | P-value           |
| <b>Gender (reference male)</b>                  | 2.64 (1.05–6.62)           | <b>&lt; 0.05</b>  |                              |                   |
| <b>Age</b>                                      | 0.96 (0.93–0.99)           | <b>&lt; 0.01</b>  | 0.94 (0.91–0.99)             | <b>&lt; 0.001</b> |
| <b>BMI</b>                                      | 0.95 (0.88–1.02)           | 0.18              |                              |                   |
| <b>Inflammation</b>                             |                            |                   |                              |                   |
| <b>Log<sub>2</sub> FCP</b>                      | 0.88 (0.63–1.23)           | 0.46              |                              |                   |
| <b>Log<sub>2</sub> ESR</b>                      | 0.94 (0.70–1.27)           | 0.70              |                              |                   |
| <b>Log<sub>2</sub> CRP</b>                      | 0.92 (0.74–1.15)           | 0.47              |                              |                   |
| <b>Log<sub>2</sub> Leukocytes</b>               | 0.49 (0.22–1.10)           | 0.09              |                              |                   |
| <b>Log<sub>2</sub> Neutrophils</b>              | 0.66 (0.34–1.26)           | 0.21              |                              |                   |
| <b>Log<sub>2</sub> Platelets</b>                | 1.57 (0.50–4.92)           | 0.44              |                              |                   |
| <b>Log<sub>2</sub> Free thiols</b>              | 0.45 (0.14–1.40)           | 0.17              |                              |                   |
| <b>Log<sub>2</sub> IL-1<math>\beta</math></b>   | 1.00 (0.75–1.33)           | 0.99              |                              |                   |
| <b>Log<sub>2</sub> IL-6</b>                     | 0.95 (0.72–1.26)           | 0.72              |                              |                   |
| <b>Log<sub>2</sub> IL-10</b>                    | 0.87 (0.62–1.22)           | 0.43              |                              |                   |
| <b>Log<sub>2</sub> IL-22</b>                    | 0.93 (0.67–1.29)           | 0.65              |                              |                   |
| <b>Log<sub>2</sub> IL-23</b>                    | 0.94 (0.71–1.24)           | 0.66              |                              |                   |
| <b>Log<sub>2</sub> TNF<math>\alpha</math></b>   | 0.91 (0.54–1.53)           | 0.72              |                              |                   |
| <b>Log<sub>2</sub> INF-<math>\gamma</math></b>  | 0.92 (0.71–1.20)           | 0.53              |                              |                   |
| <b>Iron status</b>                              |                            |                   |                              |                   |
| <b>Log<sub>2</sub> Hepcidin</b>                 | 0.26 (0.15–0.45)           | <b>&lt; 0.001</b> | 0.24 (0.13–0.43)             | <b>&lt; 0.001</b> |
| <b>Log<sub>2</sub> Iron</b>                     | 0.96 (0.56–1.66)           | 0.90              |                              |                   |
| <b>Log<sub>2</sub> Transferrin</b>              | 16.50 (1.99–136.68)        | <b>&lt; 0.01</b>  |                              |                   |
| <b>Log<sub>2</sub> TIBC</b>                     | 24.19 (3.08–190.26)        | <b>&lt; 0.01</b>  |                              |                   |
| <b>Log<sub>2</sub> TSAT</b>                     | 0.72 (0.42–1.25)           | 0.25              |                              |                   |
| <b>Hypoxia and erythropoiesis</b>               |                            |                   |                              |                   |
| <b>Log<sub>2</sub> EPO</b>                      | 1.20 (0.77–1.88)           | 0.43              |                              |                   |
| <b>Log<sub>2</sub> VEGF-A</b>                   | 0.73 (0.47–1.12)           | 0.15              |                              |                   |
| <b>Log<sub>2</sub> MIP-3<math>\alpha</math></b> | 1.19 (0.87–1.64)           | 0.28              |                              |                   |
| <b>Log<sub>2</sub> sTfR</b>                     | 1.62 (0.71–3.73)           | 0.25              |                              |                   |
| <b>Log<sub>2</sub> sTfR/log Ferritin index</b>  | 7.46 (2.83–19.69)          | <b>&lt; 0.001</b> |                              |                   |
| <b>Log<sub>2</sub> cFGF</b>                     | 1.16 (0.82–1.64)           | 0.41              |                              |                   |
| <b>Log<sub>2</sub> iFGF</b>                     | 0.99 (0.66–1.49)           | 0.96              |                              |                   |
| <b>Log<sub>2</sub> c/iFGF ratio</b>             | 1.09 (0.82–1.44)           | 0.56              |                              |                   |
| <b>Other parameters</b>                         |                            |                   |                              |                   |
| <b>Hemoglobin</b>                               | 0.70 [0.42–1.18]           | 0.18              |                              |                   |
| <b>MCV</b>                                      | 1.004 (0.93–1.08)          | 0.92              |                              |                   |
| <b>Log<sub>2</sub> LDH</b>                      | 0.52 (0.20–1.33)           | 0.17              |                              |                   |
| <b>Albumin</b>                                  | 1.03 (0.91–1.17)           | 0.65              |                              |                   |

For log<sub>2</sub> transformed variables Odds Ratios (OR) represent the increase or decrease in risk of iron deficiency if the value of the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.

**Supplementary table 5. Changes in inflammation and systemic iron parameters during induction therapy with either infliximab or vedolizumab in patients with Crohn's disease.**

|   | Baseline<br>(n = 66)    | Week 6<br>(n = 65)      | Week 14<br>(n = 62)     | Δ baseline<br>to week 6 | Δ baseline to<br>week 14 |
|---|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| <b>Hemoglobin (mmol/L)</b>              | <b>7.97 (± 0.83)</b>    | <b>8.10 [7.43–8.85]</b> | <b>8.05 [7.73–8.56]</b> | <b>P &lt; 0.05</b>      | <b>P &lt; 0.05</b>       |
| Hemoglobin females                      | 7.77 (± 0.76)           | 7.70 [7.30–8.50]        | 7.90 [7.63–8.30]        | P = 0.19                | P < 0.05                 |
| Hemoglobin males                        | 8.30 (± 0.85)           | 8.40 [8.05–9.20]        | 8.50 [8.03–8.88]        | P = 0.05                | P = 0.24                 |
| <b>MCV (fL)</b>                         | 89.90 [85.23–93.00]     | 89.70 [86.08–93.25]     | 90.00 [86.10–92.48]     | P < 0.05                | P = 0.54                 |
| <b>Ferritin (μg/L)</b>                  | 45.50 [23.00–89.25]     | 36.50 [24.25–69.00]     | 37.00 [25.50–66.50]     | <b>P &lt; 0.001</b>     | <b>P &lt; 0.05</b>       |
| <b>Iron (μmol/L)</b>                    | 11.00 [7.30–15.70]      | 13.90 [9.70–19.00]      | 14.00 [8.10–18.25]      | P = 0.06                | P = 0.08                 |
| <b>Transferrin (g/L)</b>                | 2.50 [2.20–2.90]        | 2.60 [2.30–3.10]        | 2.65 [2.40–3.00]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.001</b>      |
| <b>TIBC (μmol/L)</b>                    | 62.00 [55.00–73.00]     | 65.50 [57.25–77.00]     | 66.00 [60.00–76.00]     | <b>P &lt; 0.001</b>     | <b>P &lt; 0.001</b>      |
| <b>TSAT (%)</b>                         | 18.00 [12.00–26.75]     | 20.00 [13.00–28.00]     | 20.00 [12.50–27.50]     | P = 0.20                | P = 0.26                 |
| <b>Hepcidin (ng/mL)</b>                 | 20.87 [7.98–40.98]      | 9.05 [2.62–22.27]       | NA                      | <b>P &lt; 0.001</b>     | NA                       |
| <b>sTfR (μg/mL)</b>                     | 7.39 [5.97–9.74]        | 7.20 [6.05–8.91]        | NA                      | P = 0.68                | NA                       |
| <b>sTfR/log Ferritin Index</b>          | 4.68 [3.50–5.91]        | 4.62 [3.31–6.30]        | NA                      | P = 0.27                | NA                       |
| <b>EPO (pg/mL)</b>                      | 77.60 [49.83–134.78]    | 64.78 [45.91–100.94]    | NA                      | P < 0.05                | NA                       |
| <b>MIP-3α (pg/mL)</b>                   | 19.88 [12.68–30.02]     | 16.50 [9.35–25.64]      | NA                      | <b>P &lt; 0.05</b>      | NA                       |
| <b>VEGF-A (pg/mL)</b>                   | 117.96 [77.38–228.22]   | 113.41 [62.74–172.88]   | NA                      | <b>P &lt; 0.05</b>      | NA                       |
| <b>R-SH (μM)</b>                        | 244.88 [209.70–285.21]  | 241.22 [211.79–299.63]  | NA                      | P = 0.35                | NA                       |
| <b>ESR (mm/hour)</b>                    | 20.00 [9.00–39.00]      | 12.00 [4.00–25.00]      | 10.50 [5.00–29.50]      | <b>P &lt; 0.001</b>     | <b>P &lt; 0.01</b>       |
| <b>CRP (mg/L)</b>                       | 5.20 [1.75–12.50]       | 1.75 [0.90–6.00]        | 3.00 [0.75–9.50]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.05</b>       |
| <b>WBC (x 10<sup>9</sup>/L)</b>         | 7.90 [6.08–10.63]       | 6.60 [5.03–8.00]        | 6.60 [4.85–9.10]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.01</b>       |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b> | 5.14 [3.99–7.59]        | 4.02 [3.06–5.71]        | 3.92 [2.76–5.81]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.001</b>      |
| <b>Platelets (x 10<sup>9</sup>/L)</b>   | 327.00 [255.50–389.50]  | 287 [244.25–360.50]     | 300.50 [240.50–343.00]  | <b>P &lt; 0.01</b>      | <b>P &lt; 0.001</b>      |
| <b>FCP (mg/kg)</b>                      | 667.00 [273.25–2290.00] | NA                      | 147.50 [81.75–1437.50]  | NA                      | P = 0.48                 |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, TIBC: total iron-binding capacity, TSAT: transferrin saturation, sTfR: soluble Transferrin Receptor, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, CRP: C-reactive protein, WBC: white blood cell count, FCP: fecal calprotectin, NA: not measured. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 6. Changes in inflammation and systemic iron parameters during induction therapy with either infliximab or vedolizumab in patients with ulcerative colitis.**

|   | Baseline<br>(n = 56)    | Week 6<br>(n = 54)      | Week 14<br>(n = 52)     | Δ baseline<br>to week 6 | Δ baseline to<br>week 14 |
|---|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| <b>Hemoglobin (mmol/L)</b>              | <b>8.16 (± 0.90)</b>    | <b>8.00 [7.70–8.68]</b> | <b>8.25 [7.68–8.70]</b> | P = 0.40                | P = 0.24                 |
| Hemoglobin females                      | 7.70 [7.45–8.15]        | 7.75 [7.38–8.00]        | 7.80 [7.15–8.00]        | P = 0.32                | P = 1.00                 |
| Hemoglobin males                        | 8.40 [7.80–9.13]        | 8.50 [7.90–8.95]        | 8.50 [7.95–9.05]        | P = 0.09                | P = 0.13                 |
| <b>MCV (fL)</b>                         | 91.60 [87.13–94.58]     | 90.80 [87.53–94.68]     | 90.10 [86.68–94.13]     | P = 0.51                | P < 0.05                 |
| <b>Ferritin (μg/L)</b>                  | 45.00 [24.00–96.50]     | 37.00 [22.50–76.00]     | 40.00 [22.00–68.00]     | <b>P &lt; 0.01</b>      | <b>P &lt; 0.01</b>       |
| <b>Iron (μmol/L)</b>                    | 13.65 [9.43–18.75]      | 14.20 [9.40–18.15]      | 13.10 [7.80–19.60]      | P = 0.78                | P = 0.88                 |
| <b>Transferrin (g/L)</b>                | 2.40 [2.20–2.60]        | 2.50 [2.30–2.80]        | 2.50 [2.30–2.70]        | P < 0.05                | P < 0.05                 |
| <b>TIBC (μmol/L)</b>                    | 60.50 [56.00–66.00]     | 63.00 [57.50–70.00]     | 64.00 [58.00–68.00]     | P < 0.05                | P < 0.05                 |
| <b>TSAT (%)</b>                         | 22.00 [15.00–32.00]     | 23.00 [13.00–29.00]     | 22.00 [12.00–31.00]     | P = 0.45                | P = 0.50                 |
| <b>Hepcidin (ng/mL)</b>                 | 10.30 [3.31–21.77]      | 10.67 [3.01–17.69]      | NA                      | P = 0.20                | NA                       |
| <b>sTfR (μg/mL)</b>                     | 7.39 [5.37–10.40]       | 8.19 [6.26–10.85]       | NA                      | P = 0.16                | NA                       |
| <b>sTfR/log Ferritin Index</b>          | 4.50 [3.40–6.78]        | 4.94 [3.51–7.75]        | NA                      | P < 0.05                | NA                       |
| <b>EPO (pg/mL)</b>                      | 83.63 [58.31–129.92]    | 92.23 [60.98–151.99]    | NA                      | P = 0.96                | NA                       |
| <b>MIP-3α (pg/mL)</b>                   | 19.67 [10.69–31.40]     | 18.04 [12.67–27.16]     | NA                      | P = 0.39                | NA                       |
| <b>VEGF-A (pg/mL)</b>                   | 119.61 [77.93–186.98]   | 109.18 [69.24–190.52]   | NA                      | P = 0.49                | NA                       |
| <b>R-SH (μM)</b>                        | 216.54 [188.78–258.00]  | 229.74 [187.45–265.95]  | NA                      | P = 0.25                | NA                       |
| <b>ESR (mm/hour)</b>                    | 16.00 [6.00–37.75]      | 14.00 [7.00–30.00]      | 12.00 [7.00–21.00]      | P = 0.07                | P < 0.05                 |
| <b>CRP (mg/L)</b>                       | 2.80 [1.13–5.00]        | 2.20 [0.80–5.00]        | 1.60 [0.80–6.50]        | P = 0.12                | P = 0.12                 |
| <b>WBC (x 10<sup>9</sup>/L)</b>         | 7.65 [5.73–9.03]        | 6.30 [5.20–7.30]        | 6.00 [4.90–7.40]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.001</b>      |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b> | 5.11 [3.69–7.64]        | 4.12 [2.83–4.98]        | 3.62 [2.90–4.86]        | <b>P &lt; 0.001</b>     | <b>P &lt; 0.001</b>      |
| <b>Platelets (x 10<sup>9</sup>/L)</b>   | 289.00 [239.50–350.25]  | 266.50 [233.00–316.75]  | 264.00 [237.25–297.50]  | P = 0.26                | P = 0.29                 |
| <b>FCP (mg/kg)</b>                      | 830.00 [255.00–1650.00] | NA                      | 150.00 [41.00–640.00]   | NA                      | <b>P &lt; 0.001</b>      |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, TIBC: total iron-binding capacity, TSAT: transferrin saturation, sTfR: soluble Transferrin Receptor, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, CRP: C-reactive protein, WBC: white blood cell count, FCP: fecal calprotectin, NA: not measured. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 7. Changes in biochemical parameters in patients with IBD undergoing induction therapy with either infliximab or vedolizumab.**

|   | Infliximab<br>baseline<br>(n = 71) | Infliximab<br>week 6<br>(n = 71) | Paired<br>analysis  | Vedolizumab<br>baseline<br>(n = 51) | Vedolizumab<br>week 6<br>(n = 48) | Paired<br>analysis  | Δ difference<br>between<br>biologicals |
|---|------------------------------------|----------------------------------|---------------------|-------------------------------------|-----------------------------------|---------------------|--|
| <b>Hemoglobin (mmol/L)</b>                | <b>7.97 (± 0.82)</b>               | <b>8.10 [7.38–8.50]</b>          | <b>P &lt; 0.05</b>  | <b>8.18 (± 0.92)</b>                | <b>8.00 [7.60–8.75]</b>           | <b>P = 0.72</b>     | <b>P = 0.08</b>                        |
| <i>Hemoglobin females</i>                 | <i>7.72 (± 0.74)</i>               | <i>7.70 [7.20–8.40]</i>          | <i>P = 0.54</i>     | <i>7.70 [7.50–8.30]</i>             | <i>7.75 [7.48–8.03]</i>           | <i>P = 0.90</i>     | <i>P = 0.83</i>                        |
| <i>Hemoglobin males</i>                   | <i>8.22 (± 0.83)</i>               | <i>8.50 [8.00–9.00]</i>          | <i>P &lt; 0.01</i>  | <i>8.50 [7.90–9.28]</i>             | <i>8.50 [7.93–9.35]</i>           | <i>P = 0.66</i>     | <i>P &lt; 0.05</i>                     |
| <b>Systemic iron status parameters</b>    |                                    |                                  |                     |                                     |                                   |                     |  |
| <b>Ferritin (μg/L)</b>                    | 46.00 [23.00–102.00]               | 38.50 [21.00–73.75]              | <b>P &lt; 0.001</b> | 44.00 [24.00–80.00]                 | 36.00 [23.00–71.00]               | <b>P &lt; 0.05</b>  | <b>P = 0.34</b>                        |
| <b>Iron (μmol/L)</b>                      | 14.00 [8.70–17.25]                 | 14.10 [11.45–19.25]              | <b>P = 0.11</b>     | 11.00 [8.10–17.30]                  | 12.20 [8.20–16.70]                | <b>P = 0.82</b>     | <b>P = 0.19</b>                        |
| <b>Transferrin (g/L)</b>                  | 2.40 [2.20–2.80]                   | 2.50 [2.30–3.00]                 | <b>P &lt; 0.001</b> | 2.40 [2.20–2.70]                    | 2.50 [2.30–2.80]                  | <b>P &lt; 0.01</b>  | <b>P = 0.84</b>                        |
| <b>TIBC (μmol/L)</b>                      | 60.50 [55.75–71.00]                | 63.50 [56.50–75.25]              | <b>P &lt; 0.001</b> | 61.00 [55.00–67.00]                 | 64.00 [58.00–71.00]               | <b>P &lt; 0.01</b>  | <b>P = 0.92</b>                        |
| <b>TSAT (%)</b>                           | 21.50 [13.25–28.00]                | 24.00 [15.00–29.00]              | <b>P = 0.32</b>     | 18.00 [13.00–26.00]                 | 19.00 [12.00–28.00]               | <b>P = 0.52</b>     | <b>P = 0.23</b>                        |
| <b>Hepcidin (ng/mL)</b>                   | 13.37 [5.95–40.86]                 | 7.68 [2.29–18.68]                | <b>P &lt; 0.001</b> | 13.67 [3.93–22.73]                  | 12.09 [5.43–26.11]                | <b>P = 0.31</b>     | <b>P = 0.08</b>                        |
| <b>sTfR (μg/mL)</b>                       | 7.91 [6.00–10.26]                  | 7.16 [6.01–9.11]                 | <b>P &lt; 0.05</b>  | 7.05 [5.33–9.41]                    | 8.19 [6.68–10.10]                 | <b>P &lt; 0.001</b> | <b>P &lt; 0.001</b>                    |
| <b>sTfR/log ferritin index</b>            | 4.68 [3.52–6.45]                   | 4.39 [3.43–6.36]                 | <b>P = 0.93</b>     | 4.51 [3.09–5.84]                    | 5.25 [3.51–7.27]                  | <b>P &lt; 0.01</b>  | <b>P &lt; 0.01</b>                     |
| <b>Inflammation-associated parameters</b> |                                    |                                  |                     |                                     |                                   |                     |  |
| <b>CRP (mg/L)</b>                         | 4.80 [1.85–13.00]                  | 1.55 [0.58–4.70]                 | <b>P &lt; 0.01</b>  | 2.60 [1.20–8.00]                    | 2.90 [1.40–7.00]                  | <b>P = 0.84</b>     | <b>P &lt; 0.001</b>                    |
| <b>ESR (mm/hour)</b>                      | 18.00 [9.00–36.75]                 | 11.00 [4.00–21.50]               | <b>P &lt; 0.01</b>  | 17.00 [6.00–43.00]                  | 15.00 [10.00–33.00]               | <b>P = 0.66</b>     | <b>P &lt; 0.001</b>                    |
| <b>WBC (x 10<sup>9</sup>/L)</b>           | 7.40 [6.00–9.70]                   | 6.30 [4.48–7.80]                 | <b>P &lt; 0.01</b>  | 8.00 [5.80–10.80]                   | 6.80 [5.70–8.90]                  | <b>P &lt; 0.01</b>  | <b>P = 0.14</b>                        |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b>   | 5.13 [4.00–7.11]                   | 3.97 [2.60–4.93]                 | <b>P &lt; 0.01</b>  | 5.15 [3.68–8.53]                    | 4.31 [3.33–6.03]                  | <b>P &lt; 0.01</b>  | <b>P = 0.15</b>                        |
| <b>Platelets (x 10<sup>9</sup>/L)</b>     | 304.50 [256.25–377.75]             | 273.00 [240.75–336.75]           | <b>P &lt; 0.001</b> | 304.50 [237.75–364.25]              | 288.50 [239.00–349.25]            | <b>P = 0.83</b>     | <b>P &lt; 0.05</b>                     |
| <b>cFGF-23 (pmol/L)</b>                   | 1.03 [0.52–1.59]                   | 0.96 [0.52–1.80]                 | <b>P = 0.23</b>     | 0.77 [0.40–1.20]                    | 1.03 [0.46–1.48]                  | <b>P = 0.54</b>     | <b>P = 0.68</b>                        |
| <b>iFGF-23 (pg/mL)</b>                    | 10.13 [5.93–13.55]                 | 7.96 [5.07–12.24]                | <b>P = 0.23</b>     | 10.25 [7.81–14.38]                  | 9.67 [7.92–13.08]                 | <b>P = 0.52</b>     | <b>P = 0.86</b>                        |
| <b>c/iFGF-23 ratio</b>                    | 0.11 [0.05–0.19]                   | 0.11 [0.06–0.23]                 | <b>P = 0.34</b>     | 0.07 [0.04–0.11]                    | 0.08 [0.04–0.14]                  | <b>P = 0.83</b>     | <b>P = 0.42</b>                        |
| <b>IL-1β (pg/mL)</b>                      | 1.24 [1.06–1.36]                   | 1.13 [0.89–1.31]                 | <b>P = 0.05</b>     | 0.63 [0.12–1.09]                    | 0.91 [0.35–1.34]                  | <b>P = 0.22</b>     | <b>P &lt; 0.05</b>                     |
| <b>IL-6 (pg/mL)</b>                       | 2.30 [0.95–3.56]                   | 1.46 [0.77–2.03]                 | <b>P &lt; 0.01</b>  | 2.00 [1.08–4.75]                    | 2.26 [1.33–3.77]                  | <b>P = 0.84</b>     | <b>P = 0.06</b>                        |
| <b>IL-10 (pg/mL)</b>                      | 1.20 [0.40–1.58]                   | 1.32 [0.44–1.78]                 | <b>P &lt; 0.05</b>  | 0.93 [0.56–1.46]                    | 0.87 [0.59–1.55]                  | <b>P = 0.84</b>     | <b>P = 0.10</b>                        |
| <b>IL-22 (pg/mL)</b>                      | 1.15 [0.60–1.62]                   | 0.94 [0.53–1.26]                 | <b>P &lt; 0.01</b>  | 1.26 [0.84–2.50]                    | 0.96 [0.67–1.62]                  | <b>P &lt; 0.05</b>  | <b>P = 0.82</b>                        |
| <b>IL-23 (pg/mL)</b>                      | 7.39 [6.75–8.03]                   | 7.38 [6.64–8.81]                 | <b>P = 0.32</b>     | 1.13 [0.55–7.84]                    | 1.51 [0.29–7.94]                  | <b>P = 0.95</b>     | <b>P = 0.27</b>                        |
| <b>TNFα (pg/mL)</b>                       | 2.08 [1.43–2.61]                   | 1.52 [0.67–2.09]                 | <b>P &lt; 0.001</b> | 2.07 [1.85–3.13]                    | 2.32 [1.93–3.26]                  | <b>P = 0.19</b>     | <b>P &lt; 0.01</b>                     |
| <b>INF-γ (pg/mL)</b>                      | 18.51 [8.66–31.93]                 | 15.32 [6.48–31.10]               | <b>P = 0.30</b>     | 16.26 [8.04–29.63]                  | 14.65 [8.91–32.85]                | <b>P = 0.39</b>     | <b>P = 0.97</b>                        |
| <b>R-SH (uM)</b>                          | 238.23 [191.64–278.81]             | 244.63 [206.05–300.51]           | <b>P = 0.08</b>     | 232.35 [196.74–267.23]              | 223.73 [188.46–265.87]            | <b>P = 0.87</b>     | <b>P = 0.33</b>                        |
| <b>FCP (mg/kg) ‡</b>                      | 957.50 [406.25–2182.50]            | 120.00 [40.00–300.00]            | <b>P = 0.35</b>     | 494.00 [215.00–1530.00]             | 152.50 [44.25–957.75]             | <b>P &lt; 0.01</b>  | <b>P = 0.40</b>                        |
| <b>Hypoxia-associated parameters</b>      |                                    |                                  |                     |                                     |                                   |                     |  |
| <b>EPO (pg/mL)</b>                        | 88.20 [57.52–146.67]               | 64.78 [45.37–123.97]             | <b>P &lt; 0.01</b>  | 75.94 [52.85–105.30]                | 82.45 [60.28–114.90]              | <b>P = 0.19</b>     | <b>P &lt; 0.01</b>                     |
| <b>MIP-3α (pg/mL)</b>                     | 18.60 [10.86–28.48]                | 15.52 [9.31–21.99]               | <b>P &lt; 0.01</b>  | 22.49 [11.29–33.23]                 | 21.60 [12.24–36.11]               | <b>P = 0.94</b>     | <b>P = 0.07</b>                        |
| <b>VEGF-A (pg/mL)</b>                     | 115.35 [76.84–220.09]              | 102.48 [56.49–172.19]            | <b>P &lt; 0.01</b>  | 120.56 [83.10–211.16]               | 119.60 [75.75–212.83]             | <b>P = 0.98</b>     | <b>P &lt; 0.05</b>                     |
| <b>Other parameters</b>                   |                                    |                                  |                     |                                     |                                   |                     |  |
| <b>MCV (fL)</b>                           | 89.95 [85.30–93.08]                | 90.35 [86.38–93.33]              | <b>P = 0.12</b>     | 91.10 [86.95–94.63]                 | 89.85 [87.00–94.88]               | <b>P = 0.95</b>     | <b>P = 0.38</b>                        |
| <b>LDH (U/L)</b>                          | 164.50 [139.75–205.00]             | 169.00 [141.00–199.75]           | <b>P = 0.14</b>     | 176.00 [151.00–225.75]              | 193.50 [147.75–253.25]            | <b>P = 0.68</b>     | <b>P = 0.57</b>                        |
| <b>Albumin (g/L)</b>                      | 42.00 [40.00–44.00]                | 42.00 [41.00–44.00]              | <b>P &lt; 0.05</b>  | 41.00 [39.00–43.00]                 | 42.00 [40.00–44.00]               | <b>P = 0.26</b>     | <b>P = 0.50</b>                        |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 8. Change in biochemical parameters in patients with IBD, stratified by iron-deficient or iron-sufficient status at baseline.**

|   | ID<br>baseline<br>(n = 95) | ID<br>week 6<br>(n = 92) | Paired<br>analysis         | NON-ID<br>baseline<br>(n = 27) | NON-ID<br>week 6<br>(n = 27) | Paired<br>analysis         | Δ difference<br>between<br>groups |
|---|----------------------------|--------------------------|----------------------------|--------------------------------|------------------------------|----------------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                | <b>7.90 [7.40–8.50]</b>    | <b>8.00 [7.50–8.60]</b>  | <i>P</i> = 0.13            | <b>8.35 [7.80–8.63]</b>        | <b>8.50 [8.00–9.00]</b>      | <i>P</i> = 0.09            | <i>P</i> = 0.12                   |
| <i>Hemoglobin females</i>                 | 7.70 [7.28–8.23]           | 7.70 [7.25–8.10]         | <i>P</i> = 0.61            | 8.40 [7.68–8.50]               | 8.05 [7.50–8.65]             | <i>P</i> = 0.92            | <i>P</i> = 0.82                   |
| <i>Hemoglobin males</i>                   | 8.30 [7.85–9.15]           | 8.40 [7.90–9.18]         | <i>P</i> = 0.10            | 8.30 [7.80–8.80]               | 8.60 [8.20–9.20]             | <i>P</i> < 0.05            | <i>P</i> = 0.17                   |
| <b>Systemic iron status parameters</b>    |                            |                          |                            |                                |                              |                            |                                   |
| <b>Ferritin (μg/L)</b>                    | 34.00 [21.00–61.00]        | 30.50 [18.00–45.00]      | <b><i>P</i> &lt; 0.01</b>  | 142.00 [115.00–211.00]         | 102.00 [78.00–165.00]        | <b><i>P</i> &lt; 0.001</b> | <b><i>P</i> &lt; 0.001</b>        |
| <b>Iron (μmol/L)</b>                      | 12.00 [8.38–16.78]         | 13.30 [8.98–19.00]       | <i>P</i> = 0.55            | 15.50 [8.00–19.00]             | 15.20 [12.00–18.40]          | <i>P</i> = 0.20            | <i>P</i> = 0.43                   |
| <b>Transferrin (g/L)</b>                  | 2.50 [2.20–2.85]           | 2.60 [2.38–3.10]         | <b><i>P</i> &lt; 0.001</b> | 2.30 [2.15–2.50]               | 2.40 [2.20–2.60]             | <i>P</i> = 0.07            | <i>P</i> = 0.14                   |
| <b>TIBC (μmol/L)</b>                      | 63.00 [56.00–71.50]        | 66.50 [58.75–77.00]      | <b><i>P</i> &lt; 0.001</b> | 57.00 [50.00–61.00]            | 59.00 [53.00–64.00]          | <i>P</i> = 0.07            | <i>P</i> = 0.13                   |
| <b>TSAT (%)</b>                           | 18.00 [12.25–27.00]        | 18.00 [13.00–28.00]      | <i>P</i> = 0.79            | 22.00 [15.00–31.00]            | 25.00 [21.00–29.00]          | <i>P</i> = 0.26            | <i>P</i> = 0.29                   |
| <b>Hepcidin (ng/mL)</b>                   | 9.62 [3.80–21.19]          | 6.23 [1.83–13.24]        | <b><i>P</i> &lt; 0.01</b>  | 46.15 [23.32–67.68]            | 27.21 [16.56–54.08]          | <i>P</i> < 0.05            | <i>P</i> < 0.05                   |
| <b>sTfR (μg/mL)</b>                       | 7.36 [5.95–10.21]          | 7.77 [6.11–10.00]        | <i>P</i> = 0.65            | 7.49 [5.67–8.66]               | 7.24 [6.31–8.21]             | <i>P</i> = 0.46            | <i>P</i> = 0.62                   |
| <b>sTfR/log Ferritin Index</b>            | 4.98 [3.65–6.81]           | 5.31 [3.93–7.39]         | <i>P</i> = 0.14            | 3.46 [2.47–4.23]               | 3.49 [3.04–3.94]             | <i>P</i> < 0.05            | <i>P</i> = 0.62                   |
| <b>Inflammation-associated parameters</b> |                            |                          |                            |                                |                              |                            |                                   |
| <b>CRP (mg/L)</b>                         | 3.55 [1.60–10.25]          | 2.10 [0.90–6.00]         | <b><i>P</i> &lt; 0.01</b>  | 5.00 [1.10–22.00]              | 1.70 [0.80–5.00]             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.09                   |
| <b>ESR (mm/hour)</b>                      | 18.00 [9.00–36.75]         | 13.50 [6.00–28.50]       | <b><i>P</i> &lt; 0.001</b> | 17.00 [6.00–43.00]             | 12.00 [4.00–28.00]           | <i>P</i> < 0.05            | <i>P</i> = 0.80                   |
| <b>WBC (x 10<sup>9</sup>/L)</b>           | 7.30 [5.70–9.40]           | 6.50 [5.10–7.73]         | <b><i>P</i> &lt; 0.001</b> | 8.80 [6.80–10.70]              | 6.60 [5.30–8.20]             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.14                   |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b>   | 4.96 [3.69–7.58]           | 4.01 [2.97–5.07]         | <b><i>P</i> &lt; 0.001</b> | 6.49 [4.53–8.24]               | 4.14 [3.15–5.81]             | <b><i>P</i> &lt; 0.001</b> | <i>P</i> = 0.09                   |
| <b>Platelets (x 10<sup>9</sup>/L)</b>     | 307.00 [256.50–372.25]     | 279.00 [244.00–333.50]   | <b><i>P</i> &lt; 0.01</b>  | 266.00 [234.75–368.00]         | 270.00 [220.00–369.00]       | <i>P</i> = 0.22            | <i>P</i> = 0.40                   |
| <b>cFGF-23 (pmol/L)</b>                   | 0.92 [0.48–1.53]           | 0.93 [0.49–1.65]         | <i>P</i> = 0.42            | 0.83 [0.39–1.37]               | 1.07 [0.46–1.55]             | <i>P</i> = 0.25            | <i>P</i> = 0.48                   |
| <b>iFGF-23 (pg/mL)</b>                    | 10.32 [7.17–13.45]         | 9.07 [6.40–12.73]        | <i>P</i> = 0.15            | 8.72 [5.66–15.59]              | 9.39 [5.66–12.49]            | <i>P</i> = 0.97            | <i>P</i> = 0.64                   |
| <b>c/iFGF-23 ratio</b>                    | 0.10 [0.05–0.17]           | 0.10 [0.05–0.19]         | <i>P</i> = 0.76            | 0.06 [0.04–0.13]               | 0.10 [0.06–0.15]             | <i>P</i> = 0.50            | <i>P</i> = 0.82                   |
| <b>IL-1β (pg/mL)</b>                      | 1.10 [0.22–1.27]           | 1.07 [0.72–1.30]         | <i>P</i> = 0.81            | 1.14 [0.28–1.35]               | 1.13 [0.66–1.33]             | <i>P</i> < 0.05            | <i>P</i> = 0.10                   |
| <b>IL-6 (pg/mL)</b>                       | 2.15 [1.01–3.79]           | 1.61 [1.02–2.89]         | <i>P</i> < 0.05            | 2.28 [1.02–4.88]               | 1.54 [1.03–2.63]             | <i>P</i> = 0.07            | <i>P</i> = 0.79                   |
| <b>IL-10 (pg/mL)</b>                      | 0.96 [0.51–1.56]           | 1.01 [0.51–1.71]         | <i>P</i> < 0.05            | 0.97 [0.40–1.53]               | 0.88 [0.46–1.74]             | <i>P</i> = 0.53            | <i>P</i> = 0.74                   |
| <b>IL-22 (pg/mL)</b>                      | 1.16 [0.71–1.78]           | 0.92 [0.55–1.35]         | <b><i>P</i> &lt; 0.001</b> | 1.21 [0.91–2.34]               | 1.19 [0.83–2.36]             | <i>P</i> = 0.50            | <i>P</i> = 0.24                   |
| <b>IL-23 (pg/mL)</b>                      | 6.83 [0.80–7.97]           | 6.92 [0.93–8.75]         | <i>P</i> = 0.37            | 6.80 [0.83–7.88]               | 7.31 [1.89–8.49]             | <i>P</i> = 0.59            | <i>P</i> = 0.57                   |
| <b>TNFα (pg/mL)</b>                       | 2.07 [1.54–2.80]           | 1.91 [1.12–2.84]         | <b><i>P</i> &lt; 0.05</b>  | 2.07 [1.43–3.40]               | 1.90 [0.74–2.93]             | <i>P</i> < 0.05            | <i>P</i> = 0.46                   |
| <b>INF-γ (pg/mL)</b>                      | 17.29 [7.73–30.42]         | 13.41 [7.39–27.43]       | <i>P</i> = 0.06            | 15.70 [12.14–42.86]            | 25.86 [15.32–43.43]          | <i>P</i> = 0.69            | <i>P</i> = 0.20                   |
| <b>R-SH (uM)</b>                          | 232.35 [191.31–270.05]     | 239.79 (SD 58.93)        | <i>P</i> = 0.07            | 243.42 [209.54–302.10]         | 258.14 [197.18–299.67]       | <i>P</i> = 0.77            | <i>P</i> = 0.30                   |
| <b>FCP (mg/kg) ‡</b>                      | 724.50 [255.00–1741.75]    | 138.00 [41.00–850.00]    | <b><i>P</i> &lt; 0.01</b>  | 1021.00 [400.00–2130.00]       | 182.50 [108.75–802.50]       | <i>P</i> = 0.75            | <i>P</i> = 0.93                   |
| <b>Hypoxia-associated parameters</b>      |                            |                          |                            |                                |                              |                            |                                   |
| <b>EPO (pg/mL)</b>                        | 83.38 [54.59–136.51]       | 82.45 [55.79–129.34]     | <i>P</i> = 0.32            | 77.05 [53.50–119.09]           | 63.37 [44.56–93.97]          | <i>P</i> = 0.09            | <i>P</i> = 0.45                   |
| <b>MIP-3α (pg/mL)</b>                     | 20.68 [12.58–32.17]        | 18.52 [10.65–27.13]      | <i>P</i> < 0.05            | 18.11 [10.54–26.02]            | 15.11 [10.78–20.25]          | <i>P</i> = 0.21            | <i>P</i> = 0.75                   |
| <b>VEGF-A (pg/mL)</b>                     | 110.39 [77.54–190.13]      | 101.89 [61.34–153.99]    | <b><i>P</i> &lt; 0.01</b>  | 162.36 [80.98–300.23]          | 177.82 [87.06–282.24]        | <i>P</i> = 0.47            | <i>P</i> < 0.05                   |
| <b>Other parameters</b>                   |                            |                          |                            |                                |                              |                            |                                   |
| <b>MCV (fL)</b>                           | 90.35 [86.25–93.33]        | 90.30 [86.20–94.20]      | <i>P</i> = 0.36            | 90.45 [85.35–93.90]            | 90.00 [86.60–93.40]          | <i>P</i> = 0.61            | <i>P</i> = 0.79                   |
| <b>LDH (U/L)</b>                          | 166.50 [140.25–205.75]     | 168.00 [140.00–215.00]   | <i>P</i> = 0.15            | 178.50 [154.00–215.50]         | 186.00 [168.00–212.00]       | <i>P</i> = 0.68            | <i>P</i> = 0.74                   |
| <b>Albumin (g/L)</b>                      | 42.00 [40.00–43.00]        | 42.00 [41.00–44.00]      | <i>P</i> < 0.05            | 40.00 [38.00–44.00]            | 42.00 [39.00–44.00]          | <i>P</i> = 0.20            | <i>P</i> = 0.79                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. ID: iron deficiency, NON-ID: iron-sufficient status MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. *P*-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 9. Change in biochemical parameters in patients with Crohn's disease, stratified by iron-deficient or iron-sufficient status at baseline.**

|   | ID<br>baseline<br>(n = 52) | ID<br>week 6<br>(n = 51) | Paired<br>analysis         | NON-ID<br>baseline<br>(n = 14) | NON-ID<br>week 6<br>(n = 14) | Paired<br>analysis | Δ difference<br>between<br>groups |
|---|----------------------------|--------------------------|----------------------------|--------------------------------|------------------------------|--------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                      | <b>7.92 (± 0.82)</b>       | <b>8.00 [7.40–8.60]</b>  | <i>P</i> = 0.08            | <b>8.30 [7.60–8.80]</b>        | <b>8.55 [7.88–9.23]</b>      | <i>P</i> = 0.17    | <i>P</i> = 0.07                   |
| <i>Hemoglobin females</i>                       | 7.70 (± 0.74)              | 7.70 [7.28–8.35]         | <i>P</i> = 0.30            | 8.40 [7.55–8.80]               | 8.40 [7.50–9.20]             | <i>P</i> = 0.50    | <i>P</i> = 0.35                   |
| <i>Hemoglobin males</i>                         | 8.20 [7.80–9.15]           | 8.40 [8.03–9.20]         | <i>P</i> = 0.13            | 8.20 [7.40–8.95]               | 8.90 [8.10–9.25]             | <i>P</i> = 0.18    | <i>P</i> = 0.17                   |
| <b>Systemic iron status parameters</b>          |                            |                          |                            |                                |                              |                    |                                   |
| <b>MCV (fL)</b>                                 | 90.00 [85.30–93.30]        | 90.01 (SD 5.34)          | <i>P</i> = 0.08            | 88.40 [82.50–91.45]            | 88.65 [84.93–92.95]          | <i>P</i> = 0.26    | <i>P</i> = 0.84                   |
| <b>Ferritin (μg/L)</b>                          | 34.50 [18.50–62.50]        | 32.00 [17.50–48.50]      | <b><i>P</i> &lt; 0.01</b>  | 152.50 [111.50–220.25]         | 117.50 [76.00–163.75]        | <i>P</i> < 0.01    | <b><i>P</i> &lt; 0.001</b>        |
| <b>Iron (μmol/L)</b>                            | 11.10 [7.00–15.60]         | 13.45 [9.05–19.20]       | <i>P</i> = 0.10            | 10.50 [6.73–17.03]             | 14.10 [11.80–16.25]          | <i>P</i> = 0.33    | <i>P</i> = 0.90                   |
| <b>Transferrin (g/L)</b>                        | 2.50 [2.20–2.90]           | 2.70 [2.40–3.20]         | <b><i>P</i> &lt; 0.001</b> | 2.30 [2.10–2.75]               | 2.40 [2.20–2.75]             | <i>P</i> = 0.18    | <i>P</i> = 0.18                   |
| <b>TIBC (μmol/L)</b>                            | 63.00 [56.00–73.00]        | 67.50 [60.00–79.00]      | <b><i>P</i> &lt; 0.001</b> | 56.50 [48.50–68.50]            | 60.50 [54.50–69.50]          | <i>P</i> = 0.09    | <i>P</i> = 0.38                   |
| <b>TSAT (%)</b>                                 | 17.50 [11.75–26.25]        | 18.00 [13.00–29.00]      | <i>P</i> = 0.29            | 18.50 [11.75–28.00]            | 24.50 [19.50–25.25]          | <i>P</i> = 0.47    | <i>P</i> = 0.84                   |
| <b>Hepcidin (ng/mL)</b>                         | 12.39 [6.05–23.35]         | 5.55 [1.97–12.18]        | <b><i>P</i> &lt; 0.001</b> | 57.67 [40.91–70.68]            | 28.00 [23.25–57.09]          | <i>P</i> = 0.10    | <i>P</i> = 0.19                   |
| <b>sTfR (μg/mL)</b>                             | 7.08 [5.99–9.97]           | 7.23 [5.98–9.33]         | <i>P</i> = 0.98            | 7.64 [5.53–8.66]               | 7.16 [6.23–7.79]             | <i>P</i> = 0.40    | <i>P</i> = 0.50                   |
| <b>sTfR/log Ferritin Index</b>                  | 4.98 [3.62–6.36]           | 5.25 [3.79–6.68]         | <i>P</i> = 0.32            | 3.55 [2.43–4.23]               | 3.41 [2.80–3.98]             | <i>P</i> = 0.65    | <i>P</i> = 0.83                   |
| <b>Inflammation-associated parameters</b>       |                            |                          |                            |                                |                              |                    |                                   |
| <b>CRP (mg/L)</b>                               | 4.60 [1.60–12.00]          | 1.70 [0.58–7.13]         | <b><i>P</i> &lt; 0.01</b>  | 10.50 [1.83–37.00]             | 2.00 [1.38–4.25]             | <i>P</i> < 0.01    | <i>P</i> = 0.06                   |
| <b>ESR (mm/hour)</b>                            | 20.00 [9.00–37.50]         | 12.50 [4.25–27.00]       | <b><i>P</i> &lt; 0.001</b> | 20.50 [8.25–61.00]             | 9.00 [3.00–21.25]            | <i>P</i> < 0.05    | <i>P</i> = 0.60                   |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 7.10 [5.73–9.80]           | 6.55 [4.90–7.83]         | <b><i>P</i> &lt; 0.01</b>  | 9.45 [7.10–11.35]              | 7.95 [5.98–10.35]            | <i>P</i> = 0.06    | <i>P</i> = 0.42                   |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 4.74 [3.84–7.38]           | 4.00 [3.04–5.18]         | <b><i>P</i> &lt; 0.01</b>  | 6.85 [4.97–8.85]               | 4.80 [3.16–6.92]             | <i>P</i> < 0.01    | <i>P</i> = 0.22                   |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 327.00 [266.00–385.00]     | 290.00 [246.50–355.25]   | <b><i>P</i> &lt; 0.01</b>  | 289.00 [224.00–429.50]         | 261.00 [216.75–384.00]       | <i>P</i> = 0.10    | <i>P</i> = 0.43                   |
| <b>cFGF-23 (pmol/L)</b>                         | 0.87 [0.48–1.60]           | 0.82 [0.41–1.75]         | <i>P</i> = 0.60            | 0.83 [0.69–1.39]               | 0.93 [0.41–1.49]             | <i>P</i> = 0.81    | <i>P</i> = 0.98                   |
| <b>iFGF-23 (pg/mL)</b>                          | 10.10 [6.69–12.51]         | 8.16 [5.51–10.66]        | <i>P</i> = 0.16            | 12.25 [5.98–15.65]             | 7.56 [5.53–13.34]            | <i>P</i> = 0.31    | <i>P</i> = 0.60                   |
| <b>c/iFGF-23 ratio</b>                          | 0.10 [0.05–0.17]           | 0.12 [0.05–0.22]         | <i>P</i> = 0.22            | 0.08 [0.06–0.13]               | 0.10 [0.07–0.14]             | <i>P</i> = 0.51    | <i>P</i> = 0.65                   |
| <b>IL-1β (pg/mL)</b>                            | 1.17 [0.93–1.27]           | 1.11 [0.72–1.29]         | <i>P</i> = 0.66            | 1.31 [0.94–1.54]               | 1.24 [0.88–1.35]             | <i>P</i> = 0.05    | <i>P</i> = 0.13                   |
| <b>IL-6 (pg/mL)</b>                             | 2.29 [1.35–3.31]           | 1.71 [0.98–2.66]         | <b><i>P</i> &lt; 0.05</b>  | 2.78 [1.74–6.14]               | 2.03 [1.50–3.68]             | <i>P</i> = 0.48    | <i>P</i> = 0.44                   |
| <b>IL-10 (pg/mL)</b>                            | 0.95 [0.45–1.55]           | 1.37 [0.47–1.76]         | <b><i>P</i> &lt; 0.01</b>  | 1.10 [0.38–1.60]               | 1.45 [0.59–1.77]             | <i>P</i> = 0.13    | <i>P</i> = 1.00                   |
| <b>IL-22 (pg/mL)</b>                            | 1.15 [0.69–2.26]           | 0.97 [0.55–1.26]         | <b><i>P</i> &lt; 0.01</b>  | 1.12 [0.66–1.92]               | 1.21 [0.63–2.53]             | <i>P</i> = 0.65    | <i>P</i> = 0.48                   |
| <b>IL-23 (pg/mL)</b>                            | 6.84 [5.99–7.82]           | 7.38 [5.86–9.06]         | <i>P</i> < 0.05            | 7.40 [6.57–8.30]               | 7.31 [6.69–8.49]             | <i>P</i> = 0.61    | <i>P</i> = 0.64                   |
| <b>TNFα (pg/mL)</b>                             | 2.13 [1.72–2.57]           | 1.73 [0.95–2.17]         | <b><i>P</i> &lt; 0.001</b> | 2.15 [1.49–2.67]               | 1.91 [0.66–2.80]             | <i>P</i> = 0.13    | <i>P</i> = 0.88                   |
| <b>INF-γ (pg/mL)</b>                            | 22.95 [8.39–42.71]         | 14.30 [6.56–31.25]       | <i>P</i> < 0.05            | 22.10 [12.19–51.39]            | 27.12 [17.81–45.00]          | <i>P</i> = 0.79    | <i>P</i> = 0.51                   |
| <b>R-SH (uM)</b>                                | 238.32 [197.42–274.94]     | 228.97 [211.41–280.24]   | <i>P</i> = 0.10            | 292.44 [249.65–325.68]         | 290.33 [229.75–307.60]       | <i>P</i> = 0.28    | <i>P</i> = 0.08                   |
| <b>FCP (mg/kg) ‡</b>                            | 497.50 [173.25–1427.50]    | 147.50 [46.00–1437.50]   | <i>P</i> = 0.67            | 1420.00 [276.25–2960.00]       | 157.50 [108.75–5951.25]      | <i>P</i> = 1.00    | <i>P</i> = 0.73                   |
| <b>Hypoxia-associated parameters</b>            |                            |                          |                            |                                |                              |                    |                                   |
| <b>EPO (pg/mL)</b>                              | 77.44 [46.26–130.19]       | 65.91 [53.14–122.68]     | <i>P</i> = 0.20            | 79.86 [50.59–147.43]           | 61.82 [33.21–91.52]          | <i>P</i> < 0.05    | <i>P</i> = 0.23                   |
| <b>MIP-3α (pg/mL)</b>                           | 20.04 [12.50–33.37]        | 16.70 [9.31–26.51]       | <b><i>P</i> &lt; 0.05</b>  | 19.56 [12.63–26.02]            | 16.30 [9.49–23.08]           | <i>P</i> = 0.31    | <i>P</i> = 0.55                   |
| <b>VEGF-A (pg/mL)</b>                           | 107.02 [66.57–210.61]      | 99.39 [55.64–150.61]     | <b><i>P</i> &lt; 0.05</b>  | 194.38 [87.03–310.10]          | 210.66 [114.12–320.76]       | <i>P</i> = 0.86    | <i>P</i> = 0.51                   |
| <b>Other parameters</b>                         |                            |                          |                            |                                |                              |                    |                                   |
| <b>MCV (fL)</b>                                 | 90.00 [85.30–93.30]        | 90.01 (± 5.34)           | <i>P</i> = 0.08            | 88.40 [82.50–91.45]            | 88.65 [84.93–92.95]          | <i>P</i> = 0.26    | <i>P</i> = 0.84                   |
| <b>LDH (U/L)</b>                                | 156.50 [132.75–203.50]     | 157.00 [128.00–191.00]   | <i>P</i> = 0.58            | 175.50 [150.75–235.25]         | 187.50 [147.25–209.00]       | <i>P</i> = 0.71    | <i>P</i> = 0.75                   |
| <b>Albumin (g/L)</b>                            | 41.00 [39.00–44.00]        | 42.00 [41.00–44.00]      | <i>P</i> = 0.05            | 41.50 [39.75–45.25]            | 42.50 [41.00–44.25]          | <i>P</i> = 0.53    | <i>P</i> = 0.70                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. ID: iron deficiency, NON-ID: iron-sufficient status MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.



**Supplementary table 10. Change in biochemical parameters in patients with ulcerative colitis, stratified by iron-deficient or iron-sufficient status at baseline.**

|   | ID<br>baseline<br>(n = 43) | ID<br>week 6<br>(n = 41) | Paired<br>analysis         | NON-ID<br>baseline<br>(n = 13) | NON-ID<br>week 6<br>(n = 13) | Paired<br>analysis | Δ difference<br>between<br>groups |
|---|----------------------------|--------------------------|----------------------------|--------------------------------|------------------------------|--------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                      | <b>8.10 (SD 0.95)</b>      | <b>8.00 [7.60–8.70]</b>  | <i>P</i> = 0.71            | <b>8.40 [7.80–8.65]</b>        | <b>8.50 [7.90–8.65]</b>      | <i>P</i> = 0.35    | <i>P</i> = 0.66                   |
| <i>Hemoglobin females</i>                       | 7.70 [7.30–8.00]           | 7.80 [7.00–8.00]         | <i>P</i> = 0.53            | NA                             | NA                           | NA                 | NA                                |
| <i>Hemoglobin males</i>                         | 8.40 [7.83–9.18]           | 8.15 [7.75–9.05]         | <i>P</i> = 0.35            | 8.40 [7.80–8.90]               | 8.60 [8.30–8.90]             | <i>P</i> = 0.06    | <i>P</i> = 0.54                   |
| <b>Systemic iron status parameters</b>          |                            |                          |                            |                                |                              |                    |                                   |
| <b>Ferritin (μg/L)</b>                          | 31.00 [22.00–56.00]        | 29.00 [18.75–43.00]      | <i>P</i> = 0.15            | 139.00 [115.00–208.50]         | 98.00 [71.50–191.50]         | <i>P</i> < 0.05    | <b><i>P</i> &lt; 0.01</b>         |
| <b>Iron (μmol/L)</b>                            | 13.00 [9.40–18.00]         | 13.25 [8.93–17.75]       | <i>P</i> = 0.43            | 16.00 [10.75–20.05]            | 15.80 [11.80–19.45]          | <i>P</i> = 0.41    | <i>P</i> = 0.27                   |
| <b>Transferrin (g/L)</b>                        | 2.50 [2.20–2.70]           | 2.60 [2.30–2.88]         | <i>P</i> < 0.05            | 2.25 [2.13–2.40]               | 2.35 [2.05–2.50]             | <i>P</i> = 0.18    | <i>P</i> = 0.57                   |
| <b>TIBC (μmol/L)</b>                            | 62.00 [56.00–67.00]        | 65.00 [58.00–72.50]      | <i>P</i> < 0.05            | 57.00 [50.00–59.50]            | 57.00 [47.00–63.00]          | <i>P</i> = 0.39    | <i>P</i> = 0.24                   |
| <b>TSAT (%)</b>                                 | 19.50 [14.75–27.75]        | 20.50 [13.00–27.75]      | <i>P</i> = 0.15            | 30.00 [20.00–35.50]            | 28.00 [22.50–36.00]          | <i>P</i> = 0.39    | <i>P</i> = 0.18                   |
| <b>Hepcidin (ng/mL)</b>                         | 5.03 [2.62–14.23]          | 7.54 [1.75–15.07]        | <i>P</i> = 0.96            | 29.92 [17.87–64.93]            | 16.56 [11.57–47.44]          | <i>P</i> = 0.09    | <i>P</i> < 0.05                   |
| <b>sTfR (μg/mL)</b>                             | 7.73 [5.65–10.91]          | 8.86 [6.22–10.88]        | <i>P</i> = 0.57            | 6.20 [5.33–8.98]               | 7.56 [6.31–9.60]             | <i>P</i> = 0.09    | <i>P</i> = 0.21                   |
| <b>sTfR/log Ferritin Index</b>                  | 5.14 [3.66–7.18]           | 5.64 [3.88–8.68]         | <i>P</i> = 0.28            | 2.80 [2.37–4.30]               | 3.53 [3.14–4.59]             | <i>P</i> < 0.01    | <i>P</i> = 0.44                   |
| <b>Inflammation-associated parameters</b>       |                            |                          |                            |                                |                              |                    |                                   |
| <b>CRP (mg/L)</b>                               | 3.00 [1.30–5.00]           | 2.25 [1.13–4.98]         | <i>P</i> = 0.30            | 1.70 [0.80–15.80]              | 1.20 [0.50–5.50]             | <i>P</i> = 0.17    | <i>P</i> = 0.54                   |
| <b>ESR (mm/hour)</b>                            | 16.00 [6.00–37.00]         | 14.00 [6.00–30.00]       | <i>P</i> = 0.14            | 17.00 [5.50–40.50]             | 12.00 [8.00–34.00]           | <i>P</i> = 0.31    | <i>P</i> = 0.99                   |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 7.40 [5.70–8.80]           | 6.35 [5.20–7.30]         | <b><i>P</i> &lt; 0.01</b>  | 7.90 [5.95–10.25]              | 6.30 [4.95–7.45]             | <i>P</i> < 0.01    | <i>P</i> = 0.28                   |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 5.04 [3.66–7.64]           | 4.31 [2.81–4.83]         | <b><i>P</i> &lt; 0.01</b>  | 6.00 [4.27–7.85]               | 3.95 [2.97–5.18]             | <i>P</i> < 0.01    | <i>P</i> = 0.38                   |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 296.00 [241.00–345.00]     | 265.00 [242.00–313.00]   | <i>P</i> = 0.23            | 262.00 [237.00–358.00]         | 270.00 [221.00–357.50]       | <i>P</i> = 0.92    | <i>P</i> = 0.71                   |
| <b>cFGF-23 (pmol/L)</b>                         | 0.98 [0.46–1.39]           | 1.05 [0.58–1.58]         | <i>P</i> = 0.55            | 0.54 [0.31–1.46]               | 1.30 [0.52–2.00]             | <i>P</i> = 0.14    | <i>P</i> = 0.20                   |
| <b>iFGF-23 (pg/mL)</b>                          | 10.96 [7.92–14.64]         | 10.37 [7.50–13.78]       | <i>P</i> = 0.50            | 8.46 [5.60–16.65]              | 9.67 [6.54–12.08]            | <i>P</i> = 0.25    | <i>P</i> = 0.49                   |
| <b>c/iFGF-23 ratio</b>                          | 0.09 [0.04–0.17]           | 0.08 [0.05–0.18]         | <i>P</i> = 0.35            | 0.05 [0.04–0.32]               | 0.11 [0.05–0.20]             | <i>P</i> = 0.86    | <i>P</i> = 0.50                   |
| <b>IL-1β (pg/mL)</b>                            | 0.83 [0.15–1.28]           | 1.03 [0.58–1.36]         | <i>P</i> = 0.47            | 0.32 [0.05–1.00]               | 0.43 [0.00–1.12]             | <i>P</i> = 0.59    | <i>P</i> = 0.60                   |
| <b>IL-6 (pg/mL)</b>                             | 1.79 [0.77–5.00]           | 1.57 [1.10–3.70]         | <i>P</i> = 0.51            | 1.33 [0.80–4.48]               | 1.06 [0.72–2.09]             | <i>P</i> = 0.09    | <i>P</i> = 0.28                   |
| <b>IL-10 (pg/mL)</b>                            | 0.96 [0.59–1.58]           | 0.89 [0.60–1.65]         | <i>P</i> = 0.42            | 0.97 [0.55–1.43]               | 0.77 [0.40–2.26]             | <i>P</i> = 0.75    | <i>P</i> = 0.75                   |
| <b>IL-22 (pg/mL)</b>                            | 1.23 [0.72–1.72]           | 0.84 [0.53–1.38]         | <i>P</i> < 0.01            | 1.40 [0.99–2.58]               | 1.18 [0.80–2.05]             | <i>P</i> = 0.55    | <i>P</i> = 0.40                   |
| <b>IL-23 (pg/mL)</b>                            | 5.68 [0.56–8.76]           | 5.19 [0.62–7.50]         | <i>P</i> = 0.23            | 0.83 [0.57–7.87]               | 4.10 [0.18–8.63]             | <i>P</i> = 0.14    | <i>P</i> = 0.47                   |
| <b>TNFα (pg/mL)</b>                             | 2.05 [1.51–3.10]           | 2.01 [1.31–3.21]         | <i>P</i> = 0.87            | 1.95 [1.15–3.78]               | 1.68 [0.80–2.96]             | <i>P</i> = 0.10    | <i>P</i> = 0.24                   |
| <b>INF-γ (pg/mL)</b>                            | 15.20 [7.63–24.70]         | 12.14 [7.41–26.85]       | <i>P</i> = 0.78            | 15.00 [11.00–25.08]            | 15.96 [12.44–39.11]          | <i>P</i> = 0.33    | <i>P</i> = 0.32                   |
| <b>MIP3α (pg/mL)</b>                            | 20.90 [11.73–31.57]        | 21.10 [12.76–29.56]      | <i>P</i> = 0.58            | 14.76 [10.31–28.66]            | 13.71 [10.80–17.36]          | <i>P</i> = 0.45    | <i>P</i> = 0.79                   |
| <b>VEGF-A (pg/mL)</b>                           | 120.09 [79.12–177.55]      | 104.44 [68.59–184.14]    | <i>P</i> = 0.08            | 119.14 [71.24–258.15]          | 152.57 [70.84–197.32]        | <i>P</i> = 0.15    | <i>P</i> < 0.05                   |
| <b>R-SH (μM)</b>                                | 216.68 [189.53–266.80]     | 235.52 (SD 61.26)        | <i>P</i> = 0.37            | 212.39 [182.349–240.87]        | 223.70 [183.85–262.80]       | <i>P</i> = 0.55    | <i>P</i> = 0.86                   |
| <b>FCP (mg/kg) ‡</b>                            | 842.50 [255.00–1925.25]    | 138.00 [40.50–640.00]    | <b><i>P</i> &lt; 0.001</b> | 830.00 [400.00–1650.00]        | 235.00 [73.25–802.50]        | <i>P</i> = 0.66    | <i>P</i> = 0.55                   |
| <b>Hypoxia-associated parameters</b>            |                            |                          |                            |                                |                              |                    |                                   |
| <b>EPO (pg/mL)</b>                              | 89.78 [60.69–137.68]       | 100.82 [65.85–160.79]    | <i>P</i> = 0.93            | 76.89 [57.32–83.92]            | 63.84 [51.52–100.81]         | <i>P</i> = 0.86    | <i>P</i> = 0.81                   |
| <b>MIP-3α (pg/mL)</b>                           | 20.90 [11.73–31.57]        | 21.10 [12.76–29.56]      | <i>P</i> = 0.58            | 14.76 [10.31–28.66]            | 13.71 [10.80–17.36]          | <i>P</i> = 0.45    | <i>P</i> = 0.79                   |
| <b>VEGF-A (pg/mL)</b>                           | 120.09 [79.12–177.55]      | 104.44 [68.59–184.14]    | <i>P</i> = 0.08            | 119.14 [71.24–258.15]          | 152.57 [70.84–197.32]        | <i>P</i> = 0.15    | <i>P</i> < 0.05                   |
| <b>Other parameters</b>                         |                            |                          |                            |                                |                              |                    |                                   |
| <b>MCV (fL)</b>                                 | 91.00 [87.10–94.00]        | 90.50 [85.60–94.60]      | <i>P</i> = 0.51            | 93.30 [88.70–95.80]            | 92.20 [89.15–97.20]          | <i>P</i> = 0.81    | <i>P</i> = 0.97                   |
| <b>LDH (U/L)</b>                                | 175.50 [149.75–219.50]     | 199.00 [158.00–276.00]   | <i>P</i> = 0.13            | 185.00 [160.50–209.75]         | 186.00 [171.50–251.00]       | <i>P</i> = 0.94    | <i>P</i> = 0.54                   |
| <b>Albumin (g/L)</b>                            | 42.00 [40.00–43.00]        | 42.00 [40.00–44.00]      | <i>P</i> = 0.23            | 40.00 [37.00–43.00]            | 40.00 [39.00–42.00]          | <i>P</i> = 0.22    | <i>P</i> = 0.93                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. ID: iron deficiency, NON-ID: iron-sufficient status MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. *P*-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 11. Changes in biochemical parameters in patients with IBD over the course of induction therapy with either infliximab or vedolizumab, stratified by Biological-naïve or Biological-experienced status.**

|   | Biological naïve<br>baseline<br>(n = 67) | Biological naïve<br>week 6<br>(n = 66) | Paired<br>analysis         | Biological experienced<br>baseline<br>(n = 55) | Biological experienced<br>week 6<br>(n = 53) | Paired<br>analysis         | Δ difference<br>between<br>groups |
|---|--|--|----------------------------|--|--|----------------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                      | <b>8.10 [7.40–8.53]</b>                  | <b>8.10 [7.70–8.70]</b>                | <b><i>P</i> &lt; 0.05</b>  | <b>8.00 [7.60–8.50]</b>                        | <b>8.00 [7.50–8.90]</b>                      | <i>P</i> = 0.34            | <i>P</i> = 0.54                   |
| <i>Hemoglobin females</i>                       | 7.75 [7.23–8.30]                         | 7.75 [7.23–8.28]                       | <i>P</i> = 0.45            | 7.70 [7.30–8.43]                               | 7.70 [7.40–8.15]                             | <i>P</i> = 0.96            | <i>P</i> = 0.74                   |
| <i>Hemoglobin males</i>                         | 8.35 (SD 0.93)                           | 8.40 [8.00–8.95]                       | <b><i>P</i> &lt; 0.05</b>  | 8.30 [7.90–9.05]                               | 8.55 [7.85–9.23]                             | <i>P</i> = 0.15            | <i>P</i> = 0.83                   |
| <b>Systemic iron status parameters</b>          |  |  |                            |  |  |                            |                                   |
| <b>Ferritin (μg/L)</b>                          | 46.00 [24.00–92.00]                      | 40.00 [24.50–74.50]                    | <b><i>P</i> &lt; 0.001</b> | 43.00 [22.00–92.00]                            | 36.00 [22.25–68.50]                          | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.90                   |
| <b>Iron (μmol/L)</b>                            | 14.00 [9.00–19.00]                       | 14.80 [11.30–19.00]                    | <i>P</i> = 0.47            | 10.70 [8.00–15.60]                             | 12.95 [8.05–16.03]                           | <i>P</i> = 0.36            | <i>P</i> = 0.91                   |
| <b>Transferrin (g/L)</b>                        | 2.40 [2.20–2.80]                         | 2.50 [2.30–3.00]                       | <b><i>P</i> &lt; 0.001</b> | 2.40 [2.20–2.73]                               | 2.60 (SD 0.45)                               | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.84                   |
| <b>TIBC (μmol/L)</b>                            | 61.00 [56.00–69.00]                      | 63.00 [57.00–74.00]                    | <b><i>P</i> &lt; 0.001</b> | 60.50 [55.00–69.50]                            | 65.65 (SD 11.57)                             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.98                   |
| <b>TSAT (%)</b>                                 | 24.00 [14.00–31.00]                      | 24.00 [15.00–29.00]                    | <i>P</i> = 0.97            | 18.00 [12.00–24.75]                            | 19.50 [12.25–26.00]                          | <i>P</i> = 0.60            | <i>P</i> = 0.69                   |
| <b>Hepcidin (ng/mL)</b>                         | 12.43 [5.95–29.21]                       | 8.35 [2.53–21.20]                      | <b><i>P</i> &lt; 0.001</b> | 13.93 [4.41–28.46]                             | 11.65 [4.02–21.98]                           | <i>P</i> = 0.06            | <i>P</i> = 0.44                   |
| <b>sTfR (μg/mL)</b>                             | 7.39 [5.95–10.22]                        | 7.20 [5.94–9.36]                       | <i>P</i> = 0.21            | 7.34 [5.60–9.64]                               | 7.71 [6.68–9.84]                             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> < 0.01                   |
| <b>sTfR/log Ferritin Index</b>                  | 4.48 [3.43–6.08]                         | 4.44 [3.45–6.36]                       | <i>P</i> = 0.53            | 4.73 [3.39–6.52]                               | 5.25 [3.62–7.04]                             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> < 0.05                   |
| <b>Inflammation-associated parameters</b>       |  |  |                            |  |  |                            |                                   |
| <b>CRP (mg/L)</b>                               | 4.50 [1.60–12.00]                        | 1.70 [0.65–4.95]                       | <b><i>P</i> &lt; 0.001</b> | 3.00 [1.45–11.00]                              | 2.40 [1.23–8.70]                             | <i>P</i> < 0.05            | <i>P</i> = 0.18                   |
| <b>ESR (mm/hour)</b>                            | 16.00 [7.00–37.50]                       | 11.00 [5.00–24.00]                     | <b><i>P</i> &lt; 0.001</b> | 18.00 [9.00–40.00]                             | 14.00 [6.75–32.25]                           | <i>P</i> = 0.07            | <i>P</i> = 0.07                   |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 7.20 [5.70–9.20]                         | 6.30 [4.55–7.30]                       | <b><i>P</i> &lt; 0.001</b> | 8.20 [6.20–11.20]                              | 6.60 [5.75–8.90]                             | <b><i>P</i> &lt; 0.001</b> | <i>P</i> = 0.63                   |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 5.01 [3.59–6.94]                         | 3.83 [2.66–4.79]                       | <b><i>P</i> &lt; 0.001</b> | 5.82 [4.02–9.04]                               | 4.20 [3.20–6.22]                             | <b><i>P</i> &lt; 0.001</b> | <i>P</i> = 0.35                   |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 294.50 [246.75–373.75]                   | 271.00 [236.00–349.50]                 | <b><i>P</i> &lt; 0.01</b>  | 310.50 [248.75–365.50]                         | 288.00 [245.00–337.00]                       | <i>P</i> = 0.19            | <i>P</i> = 0.22                   |
| <b>cFGF-23 (pmol/L)</b>                         | 1.03 [0.58–1.61]                         | 0.96 [0.52–1.73]                       | <i>P</i> = 0.34            | 0.76 [0.43–1.34]                               | 1.01 [0.46–1.64]                             | <i>P</i> = 0.49            | <i>P</i> = 0.91                   |
| <b>iFGF-23 (pg/mL)</b>                          | 10.13 [5.93–13.55]                       | 8.65 [5.69–13.04]                      | <i>P</i> = 0.44            | 10.25 [8.02–14.13]                             | 9.23 [7.53–12.40]                            | <i>P</i> = 0.23            | <i>P</i> = 0.73                   |
| <b>c/iFGF-23 ratio</b>                          | 0.10 [0.05–0.20]                         | 0.10 [0.05–0.21]                       | <i>P</i> = 0.69            | 0.07 [0.04–0.12]                               | 0.10 [0.04–0.17]                             | <i>P</i> = 0.62            | <i>P</i> = 0.90                   |
| <b>IL-1β (pg/mL)</b>                            | 1.23 [0.46–1.32]                         | 1.08 [0.66–1.29]                       | <i>P</i> = 0.16            | 0.97 [0.21–1.23]                               | 1.03 [0.85–1.36]                             | <i>P</i> = 0.65            | <i>P</i> = 0.18                   |
| <b>IL-6 (pg/mL)</b>                             | 2.05 [0.95–3.65]                         | 1.39 [0.92–2.70]                       | <b><i>P</i> &lt; 0.05</b>  | 2.46 [1.08–4.75]                               | 2.04 [1.33–2.95]                             | <i>P</i> = 0.22            | <i>P</i> = 0.42                   |
| <b>IL-10 (pg/mL)</b>                            | 1.14 [0.57–1.56]                         | 1.20 [0.45–1.78]                       | <i>P</i> = 0.07            | 0.81 [0.50–1.56]                               | 0.78 [0.51–1.59]                             | <i>P</i> = 0.26            | <i>P</i> = 0.66                   |
| <b>IL-22 (pg/mL)</b>                            | 1.15 [0.69–1.62]                         | 0.94 [0.62–1.27]                       | <b><i>P</i> &lt; 0.01</b>  | 1.24 [0.78–2.68]                               | 0.97 [0.57–1.67]                             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.26                   |
| <b>IL-23 (pg/mL)</b>                            | 7.23 [6.42–7.92]                         | 6.92 [1.71–8.22]                       | <i>P</i> = 0.71            | 6.00 [0.65–7.87]                               | 7.04 [0.79–8.76]                             | <i>P</i> = 0.49            | <i>P</i> = 0.98                   |
| <b>TNFα (pg/mL)</b>                             | 2.08 [1.44–2.65]                         | 1.62 [0.75–2.12]                       | <b><i>P</i> &lt; 0.001</b> | 2.07 [1.68–2.84]                               | 2.10 [1.69–3.25]                             | <i>P</i> = 0.72            | <b><i>P</i> &lt; 0.01</b>         |
| <b>INF-γ (pg/mL)</b>                            | 18.40 [7.83–31.37]                       | 15.32 [6.59–28.01]                     | <i>P</i> = 0.72            | 16.71 [8.77–30.27]                             | 14.65 [7.61–33.49]                           | <i>P</i> = 0.12            | <i>P</i> = 0.36                   |
| <b>R-SH (uM)</b>                                | 233.56 [190.86–271.41]                   | 241.22 [205.73–302.02]                 | <b><i>P</i> &lt; 0.05</b>  | 235.14 [206.07–277.99]                         | 225.84 [194.99–267.37]                       | <i>P</i> = 0.21            | <i>P</i> < 0.01                   |
| <b>FCP (mg/kg) ‡</b>                            | 745.00 [248.75–1665.00]                  | 61.50 [40.00–180.75]                   | <b><i>P</i> &lt; 0.01</b>  | 805.00 [258.50–2158.50]                        | 180.00 [105.00–1760.00]                      | <i>P</i> = 0.07            | <i>P</i> = 0.43                   |
| <b>Hypoxia-associated parameters</b>            |  |  |                            |  |  |                            |                                   |
| <b>EPO (pg/mL)</b>                              | 88.20 [64.74–136.51]                     | 70.00 [55.86–126.77]                   | <b><i>P</i> &lt; 0.01</b>  | 74.33 [40.19–105.81]                           | 68.32 [52.45–112.58]                         | <i>P</i> = 0.65            | <i>P</i> = 0.05                   |
| <b>MIP-3α (pg/mL)</b>                           | 19.94 [11.73–31.83]                      | 18.19 [11.28–25.64]                    | <b><i>P</i> &lt; 0.01</b>  | 19.51 [10.70–28.61]                            | 15.34 [10.16–27.16]                          | <i>P</i> = 0.75            | <i>P</i> = 0.06                   |
| <b>VEGF-A (pg/mL)</b>                           | 124.06 [77.26–220.09]                    | 109.18 [64.70–182.00]                  | <i>P</i> < 0.05            | 115.60 [77.56–211.16]                          | 118.48 [67.60–201.72]                        | <i>P</i> = 0.38            | <i>P</i> = 0.35                   |
| <b>Other parameters</b>                         |  |  |                            |  |  |                            |                                   |
| <b>MCV (fL)</b>                                 | 90.55 [85.88–93.55]                      | 90.80 [86.20–93.95]                    | <i>P</i> = 0.58            | 90.25 [85.55–93.30]                            | 89.70 [86.30–94.10]                          | <i>P</i> = 0.40            | <i>P</i> = 0.58                   |
| <b>LDH (U/L)</b>                                | 167.00 [140.00–205.00]                   | 173.00 [152.00–230.00]                 | <i>P</i> < 0.05            | 172.00 [149.00–222.00]                         | 179.00 [137.00–212.00]                       | <i>P</i> = 0.87            | <i>P</i> = 0.16                   |
| <b>Albumin (g/L)</b>                            | 42.00 [40.00–44.00]                      | 42.00 [41.00–44.00]                    | <b><i>P</i> &lt; 0.01</b>  | 41.00 [39.50–43.00]                            | 42.00 [40.00–44.00]                          | <i>P</i> = 0.41            | <i>P</i> = 0.28                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. *P*-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 12. Changes in biochemical parameters in patients with Crohn's disease over the course of induction therapy with either infliximab or vedolizumab, stratified by Biological-naïve or Biological-experienced status.**

|   | Biological naïve<br>baseline<br>(n = 39) | Biological naïve<br>week 6<br>(n = 38) | Paired<br>analysis         | Biological experienced<br>baseline<br>(n = 27) | Biological experienced<br>week 6<br>(n = 27) | Paired<br>analysis | Δ difference<br>between<br>groups |
|---|--|--|----------------------------|--|--|--------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.10 [7.38–8.43]</b>                  | <b>8.20 [7.38–8.70]</b>                | <b><i>P</i> &lt; 0.05</b>  | <b>7.90 [7.30–8.50]</b>                        | <b>8.00 [7.40–8.98]</b>                      | <i>P</i> = 0.45    | <i>P</i> = 0.44                   |
| <i>Hemoglobin females</i>                 | 7.80 [7.15–8.40]                         | 7.80 [7.25–8.55]                       | <i>P</i> = 0.06            | 7.70 [7.30–8.50]                               | 7.65 [7.40–8.53]                             | <i>P</i> = 1.00    | <i>P</i> = 0.32                   |
| <i>Hemoglobin males</i>                   | 8.20 [7.65–9.25]                         | 8.40 [8.10–9.10]                       | <i>P</i> = 0.11            | 8.15 [7.90–8.80]                               | 8.85 [7.78–9.28]                             | <i>P</i> = 0.21    | <i>P</i> = 0.71                   |
| <b>Systemic iron status parameters</b>    |  |  |                            |  |  |                    |                                   |
| <b>Ferritin (μg/L)</b>                    | 39.00 [23.00–89.00]                      | 32.00 [23.25–68.50]                    | <b><i>P</i> &lt; 0.01</b>  | 58.00 [29.00–102.00]                           | 50.00 [27.00–70.25]                          | <i>P</i> < 0.05    | <i>P</i> = 0.51                   |
| <b>Iron (μmol/L)</b>                      | 12.00 [8.00–16.50]                       | 14.05 [10.75–19.20]                    | <i>P</i> = 0.11            | 9.50 [6.30–15.60]                              | 13.35 [7.75–15.88]                           | <i>P</i> = 0.40    | <i>P</i> = 0.89                   |
| <b>Transferrin (g/L)</b>                  | 2.55 [2.20–2.90]                         | 2.70 [2.30–3.20]                       | <b><i>P</i> &lt; 0.001</b> | 2.40 [2.20–2.90]                               | 2.55 [2.38–2.93]                             | <i>P</i> = 0.06    | <i>P</i> = 0.22                   |
| <b>TIBC (μmol/L)</b>                      | 63.00 [55.00–74.00]                      | 68.50 [57.00–79.50]                    | <b><i>P</i> &lt; 0.001</b> | 61.00 [55.00–73.00]                            | 64.50 [59.25–74.00]                          | <i>P</i> = 0.06    | <i>P</i> = 0.25                   |
| <b>TSAT (%)</b>                           | 20.00 [11.75–27.00]                      | 20.41 [15.00–29.00]                    | <i>P</i> = 0.39            | 16.50 [11.25–24.75]                            | 19.50 [10.75–25.25]                          | <i>P</i> = 0.38    | <i>P</i> = 0.81                   |
| <b>Hepcidin (ng/mL)</b>                   | 12.43 [6.96–39.65]                       | 6.37 [2.04–18.92]                      | <b><i>P</i> &lt; 0.001</b> | 21.95 [10.18–55.91]                            | 14.39 [4.97–26.86]                           | <i>P</i> = 0.06    | <i>P</i> = 0.62                   |
| <b>sTfR (μg/mL)</b>                       | 7.60 [5.95–10.20]                        | 7.33 [5.75–9.23]                       | <i>P</i> = 0.47            | 7.07 [6.00–8.94]                               | 7.11 [6.20–8.35]                             | <i>P</i> = 0.69    | <i>P</i> = 0.46                   |
| <b>sTfR/log Ferritin Index</b>            | 4.68 [3.48–6.08]                         | 4.66 [3.39–6.46]                       | <i>P</i> = 0.61            | 4.59 [3.40–5.47]                               | 4.57 [3.25–6.13]                             | <i>P</i> = 0.23    | <i>P</i> = 0.38                   |
| <b>Inflammation-associated parameters</b> |  |  |                            |  |  |                    |                                   |
| <b>CRP (mg/L)</b>                         | 5.20 [1.60–13.00]                        | 2.00 [0.73–4.70]                       | <b><i>P</i> &lt; 0.001</b> | 6.25 [1.83–15.25]                              | 1.70 [1.28–11.50]                            | <i>P</i> < 0.01    | <i>P</i> = 0.96                   |
| <b>ESR (mm/hour)</b>                      | 20.00 [8.00–35.50]                       | 11.00 [3.50–21.00]                     | <b><i>P</i> &lt; 0.001</b> | 21.00 [10.50–46.50]                            | 14.00 [5.50–33.50]                           | <i>P</i> < 0.05    | <i>P</i> = 0.39                   |
| <b>WBC (x 10<sup>9</sup>/L)</b>           | 7.00 [5.70–9.70]                         | 6.40 [4.48–7.83]                       | <b><i>P</i> &lt; 0.01</b>  | 8.20 [7.00–11.60]                              | 7.50 [6.15–10.35]                            | <i>P</i> < 0.05    | <i>P</i> = 0.98                   |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b>   | 4.68 [3.80–7.11]                         | 3.70 [2.81–4.88]                       | <b><i>P</i> &lt; 0.01</b>  | 5.65 [4.04–9.17]                               | 4.65 [3.38–6.82]                             | <i>P</i> < 0.05    | <i>P</i> = 0.79                   |
| <b>Platelets (x 10<sup>9</sup>/L)</b>     | 329.00 [258.50–385.00]                   | 284.00 [242.25–361.75]                 | <b><i>P</i> &lt; 0.01</b>  | 324.50 [248.25–396.75]                         | 287.00 [241.00–340.50]                       | <i>P</i> < 0.05    | <i>P</i> = 0.46                   |
| <b>cFGF-23 (pmol/L)</b>                   | 1.07 [0.71–1.63]                         | 0.89 [0.44–1.84]                       | <i>P</i> = 0.48            | 0.72 [0.41–1.37]                               | 0.75 [0.32–1.60]                             | <i>P</i> = 0.71    | <i>P</i> = 0.37                   |
| <b>iFGF-23 (pg/mL)</b>                    | 10.42 [5.93–13.14]                       | 8.11 [5.45–11.31]                      | <i>P</i> = 0.36            | 9.81 [8.02–13.94]                              | 8.08 [5.60–10.24]                            | <i>P</i> = 0.09    | <i>P</i> = 0.52                   |
| <b>c/iFGF-23 ratio</b>                    | 0.11 [0.06–0.19]                         | 0.12 [0.06–0.22]                       | <i>P</i> = 0.19            | 0.08 [0.03–0.12]                               | 0.08 [0.04–0.18]                             | <i>P</i> = 0.57    | <i>P</i> = 0.64                   |
| <b>IL-1β (pg/mL)</b>                      | 1.23 [1.09–1.32]                         | 1.13 [0.89–1.29]                       | <i>P</i> = 0.10            | 1.10 [0.47–1.58]                               | 1.03 [0.58–1.40]                             | <i>P</i> = 0.80    | <i>P</i> = 0.42                   |
| <b>IL-6 (pg/mL)</b>                       | 2.38 [1.53–3.21]                         | 1.71 [0.99–2.69]                       | <b><i>P</i> &lt; 0.05</b>  | 2.66 [0.81–3.59]                               | 2.02 [1.19–2.87]                             | <i>P</i> = 0.72    | <i>P</i> = 0.17                   |
| <b>IL-10 (pg/mL)</b>                      | 1.36 [0.57–1.56]                         | 1.47 [0.54–1.79]                       | <b><i>P</i> &lt; 0.01</b>  | 0.52 [0.38–1.42]                               | 0.68 [0.47–1.58]                             | <i>P</i> < 0.01    | <i>P</i> = 0.98                   |
| <b>IL-22 (pg/mL)</b>                      | 1.10 [0.64–1.72]                         | 1.03 [0.56–1.26]                       | <i>P</i> < 0.05            | 1.15 [0.72–3.08]                               | 1.01 [0.45–2.13]                             | <i>P</i> = 0.07    | <i>P</i> = 0.45                   |
| <b>IL-23 (pg/mL)</b>                      | 7.23 [6.74–7.91]                         | 7.25 [6.48–8.82]                       | <i>P</i> = 0.22            | 6.26 [0.75–7.82]                               | 7.66 [0.93–9.26]                             | <i>P</i> < 0.05    | <i>P</i> = 0.47                   |
| <b>TNFα (pg/mL)</b>                       | 2.20 [1.63–2.53]                         | 1.62 [0.91–2.25]                       | <b><i>P</i> &lt; 0.001</b> | 2.03 [1.52–2.58]                               | 2.02 [1.15–2.65]                             | <i>P</i> = 0.24    | <i>P</i> = 0.13                   |
| <b>INF-γ (pg/mL)</b>                      | 25.91 [10.20–42.78]                      | 16.34 [6.56–27.34]                     | <i>P</i> = 0.16            | 17.50 [8.10–55.88]                             | 18.57 [7.68–46.95]                           | <i>P</i> = 0.18    | <i>P</i> = 0.86                   |
| <b>R-SH (uM)</b>                          | 244.32 [191.64–278.81]                   | 241.22 [211.79–301.38]                 | <i>P</i> = 0.10            | 260.15 [212.25–291.56]                         | 242.32 [206.69–295.59]                       | <i>P</i> = 0.46    | <i>P</i> = 0.14                   |
| <b>FCP (mg/kg) ‡</b>                      | 682.50 [228.75–1802.50]                  | 66.50 [40.00–138.75]                   | <i>P</i> = 0.11            | 524.50 [288.25–2875.00]                        | 647.50 [116.25–2240.00]                      | <i>P</i> = 0.95    | <i>P</i> = 0.41                   |
| <b>Hypoxia-associated parameters</b>      |  |  |                            |  |  |                    |                                   |
| <b>EPO (pg/mL)</b>                        | 100.77 [63.17–148.64]                    | 66.91 [53.95–122.78]                   | <b><i>P</i> &lt; 0.05</b>  | 60.05 [39.62–89.33]                            | 59.96 [42.72–84.00]                          | <i>P</i> = 0.78    | <i>P</i> = 0.11                   |
| <b>MIP-3α (pg/mL)</b>                     | 19.80 [12.68–30.02]                      | 17.37 [9.66–23.97]                     | <b><i>P</i> &lt; 0.01</b>  | 22.88 [11.32–34.31]                            | 15.65 [8.45–47.49]                           | <i>P</i> = 0.37    | <i>P</i> = 0.20                   |
| <b>VEGF-A (pg/mL)</b>                     | 125.30 [85.92–225.89]                    | 110.87 [67.97–172.88]                  | <i>P</i> = 0.10            | 107.35 [76.84–235.19]                          | 117.92 [54.61–199.55]                        | <i>P</i> = 0.15    | <i>P</i> = 0.68                   |
| <b>Other parameters</b>                   |  |  |                            |  |  |                    |                                   |
| <b>MCV (fL)</b>                           | 89.30 (SD 5.02)                          | 90.65 [85.65–93.48]                    | <i>P</i> < 0.05            | 90.20 [84.53–92.90]                            | 89.35 [86.03–92.48]                          | <i>P</i> = 0.39    | <i>P</i> = 0.76                   |
| <b>LDH (U/L)</b>                          | 156.00 [134.00–203.00]                   | 164.00 [142.00–203.00]                 | <i>P</i> = 0.08            | 168.00 [137.50–225.50]                         | 157.00 [126.50–191.00]                       | <i>P</i> = 0.34    | <i>P</i> = 0.06                   |
| <b>Albumin (g/L)</b>                      | 42.00 [40.00–44.00]                      | 43.00 [41.00–44.50]                    | <i>P</i> < 0.05            | 41.00 [39.00–43.25]                            | 42.00 [40.00–44.00]                          | <i>P</i> = 0.57    | <i>P</i> = 0.30                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin, MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. *P*-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 13. Changes in biochemical parameters in patients with ulcerative colitis over the course of induction therapy with either infliximab or vedolizumab, stratified by Biological-naïve or Biological-experienced status.**

|   | Biological naïve<br>baseline<br>(n = 28) | Biological naïve<br>week 6<br>(n = 27) | Paired<br>analysis | Biological experienced<br>baseline<br>(n = 28) | Biological experienced<br>week 6<br>(n = 27) | Paired<br>analysis         | Δ difference<br>between<br>groups |
|---|--|--|--------------------|--|--|----------------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.18 (SD 0.91)</b>                    | <b>8.00 [7.70–8.70]</b>                | <i>P</i> = 0.58    | <b>8.10 [7.63–8.73]</b>                        | <b>8.00 [7.65–8.65]</b>                      | <i>P</i> = 0.57            | <i>P</i> = 0.92                   |
| <i>Hemoglobin females</i>                 | 7.70 [7.30–8.10]                         | 7.70 [6.90–8.00]                       | <i>P</i> = 0.09    | 7.70 [7.50–8.40]                               | 7.80 [7.50–8.10]                             | <i>P</i> = 0.89            | <i>P</i> = 0.20                   |
| <i>Hemoglobin males</i>                   | 8.30 [7.80–8.95]                         | 8.50 [7.90–8.70]                       | <i>P</i> = 0.11    | 8.50 [7.95–9.20]                               | 8.50 [7.83–9.18]                             | <i>P</i> = 0.41            | <i>P</i> = 0.69                   |
| <b>Systemic iron status parameters</b>    |  |  |                    |  |  |                            |                                   |
| <b>Ferritin (μg/L)</b>                    | 54.50 [30.00–101.00]                     | 43.00 [26.00–82.00]                    | <i>P</i> < 0.05    | 31.00 [21.25–89.00]                            | 31.50 [22.00–67.75]                          | <i>P</i> = 0.14            | <i>P</i> = 0.59                   |
| <b>Iron (μmol/L)</b>                      | 15.90 [11.48–20.23]                      | 14.80 [11.60–19.00]                    | <i>P</i> = 0.49    | 11.10 [8.48–16.60]                             | 12.25 [7.95–17.95]                           | <i>P</i> = 0.77            | <i>P</i> = 0.53                   |
| <b>Transferrin (g/L)</b>                  | 2.40 [2.28–2.60]                         | 2.40 [2.28–2.73]                       | <i>P</i> = 0.18    | 2.35 [2.20–2.68]                               | 2.60 [2.30–2.85]                             | <i>P</i> < 0.05            | <i>P</i> = 0.24                   |
| <b>TIBC (μmol/L)</b>                      | 60.50 [56.25–65.00]                      | 60.00 [55.00–69.00]                    | <i>P</i> = 0.30    | 59.50 [54.25–67.00]                            | 65.00 [57.75–73.25]                          | <i>P</i> < 0.05            | <i>P</i> = 0.18                   |
| <b>TSAT (%)</b>                           | 27.00 [17.00–34.00]                      | 27.00 [17.00–30.00]                    | <i>P</i> = 0.33    | 18.00 [14.25–26.00]                            | 18.50 [12.75–27.25]                          | <i>P</i> = 0.86            | <i>P</i> = 0.56                   |
| <b>Hepcidin (ng/mL)</b>                   | 12.43 [5.02–23.89]                       | 11.53 [3.39–37.27]                     | <i>P</i> = 0.33    | 4.93 [2.96–17.73]                              | 9.94 [2.51–15.85]                            | <i>P</i> = 0.41            | <i>P</i> = 0.87                   |
| <b>sTfR (μg/mL)</b>                       | 7.29 [5.90–10.70]                        | 6.88 [5.98–9.69]                       | <i>P</i> = 0.25    | 8.44 [5.29–10.40]                              | 9.53 [7.06–13.46]                            | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> < 0.05                   |
| <b>sTfR/log Ferritin Index</b>            | 4.27 [3.40–6.05]                         | 3.96 [3.46–6.22]                       | <i>P</i> = 0.75    | 4.78 [3.34–6.79]                               | 5.81 [3.80–10.41]                            | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> < 0.05                   |
| <b>Inflammation-associated parameters</b> |  |  |                    |  |  |                            |                                   |
| <b>CRP (mg/L)</b>                         | 3.40 [1.25–5.75]                         | 1.70 [0.60–5.00]                       | <i>P</i> < 0.05    | 2.45 [0.98–4.98]                               | 2.85 [1.18–5.25]                             | <i>P</i> = 0.81            | <i>P</i> = 0.07                   |
| <b>ESR (mm/hour)</b>                      | 13.50 [6.00–41.75]                       | 12.00 [6.00–31.50]                     | <i>P</i> < 0.01    | 16.50 [6.25–27.50]                             | 15.00 [9.50–30.50]                           | <i>P</i> = 0.98            | <i>P</i> = 0.12                   |
| <b>WBC (x 10<sup>9</sup>/L)</b>           | 7.35 [5.48–8.50]                         | 5.80 [4.60–7.10]                       | <i>P</i> < 0.01    | 8.15 [5.83–10.75]                              | 6.55 [5.50–8.38]                             | <b><i>P</i> &lt; 0.01</b>  | <i>P</i> = 0.41                   |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b>   | 5.04 [3.38–6.02]                         | 4.14 [2.30–4.82]                       | <i>P</i> < 0.05    | 6.47 [3.89–9.03]                               | 4.12 [2.97–5.13]                             | <b><i>P</i> &lt; 0.001</b> | <i>P</i> = 0.10                   |
| <b>Platelets (x 10<sup>9</sup>/L)</b>     | 263.50 [235.25–319.75]                   | 258.00 [218.00–299.00]                 | <i>P</i> = 0.08    | 308.00 [248.25–355.75]                         | 289.00 [243.50–341.50]                       | <i>P</i> = 0.91            | <i>P</i> = 0.25                   |
| <b>cFGF-23 (pmol/L)</b>                   | 0.89 [0.37–1.45]                         | 1.04 [0.60–1.42]                       | <i>P</i> = 0.66    | 0.86 [0.45–1.33]                               | 1.29 [0.52–1.64]                             | <i>P</i> = 0.24            | <i>P</i> = 0.46                   |
| <b>iFGF-23 (pg/mL)</b>                    | 9.14 [5.77–18.08]                        | 9.71 [5.81–14.24]                      | <i>P</i> = 0.96    | 11.85 [8.02–14.58]                             | 9.86 [8.42–13.08]                            | <i>P</i> = 0.86            | <i>P</i> = 0.87                   |
| <b>c/iFGF-23 ratio</b>                    | 0.07 [0.03–0.21]                         | 0.08 [0.05–0.22]                       | <i>P</i> = 0.35    | 0.06 [0.04–0.12]                               | 0.10 [0.05–0.17]                             | <i>P</i> = 0.91            | <i>P</i> = 0.40                   |
| <b>IL-1β (pg/mL)</b>                      | 0.46 [0.04–1.36]                         | 0.94 [0.09–1.27]                       | <i>P</i> = 0.89    | 0.86 [0.15–1.15]                               | 1.01 [0.75–1.36]                             | <i>P</i> = 0.43            | <i>P</i> = 0.68                   |
| <b>IL-6 (pg/mL)</b>                       | 1.22 [0.74–4.48]                         | 1.09 [0.65–3.60]                       | <i>P</i> = 0.34    | 2.38 [1.09–5.00]                               | 2.14 [1.33–3.53]                             | <i>P</i> = 0.24            | <i>P</i> = 1.00                   |
| <b>IL-10 (pg/mL)</b>                      | 0.89 [0.49–1.52]                         | 0.77 [0.44–1.51]                       | <i>P</i> = 0.68    | 1.34 [0.69–1.57]                               | 0.92 [0.59–1.68]                             | <i>P</i> = 0.43            | <i>P</i> = 0.64                   |
| <b>IL-22 (pg/mL)</b>                      | 1.22 [0.70–1.56]                         | 0.87 [0.66–1.40]                       | <i>P</i> = 0.11    | 1.32 [0.93–2.46]                               | 0.90 [0.62–1.60]                             | <i>P</i> < 0.05            | <i>P</i> = 0.34                   |
| <b>IL-23 (pg/mL)</b>                      | 6.17 [0.78–12.37]                        | 1.71 [0.19–7.32]                       | <i>P</i> = 0.16    | 1.23 [0.46–8.13]                               | 6.56 [0.57–8.62]                             | <i>P</i> = 0.31            | <i>P</i> = 0.61                   |
| <b>TNFα (pg/mL)</b>                       | 1.75 [1.17–3.11]                         | 1.48 [0.60–2.03]                       | <i>P</i> < 0.05    | 2.07 [1.86–3.14]                               | 2.90 [1.95–3.52]                             | <i>P</i> = 0.15            | <i>P</i> < 0.01                   |
| <b>INF-γ (pg/mL)</b>                      | 12.20 [5.96–19.48]                       | 12.91 [6.38–32.97]                     | <i>P</i> = 0.10    | 15.82 [11.00–25.86]                            | 13.79 [7.54–27.07]                           | <i>P</i> = 0.36            | <i>P</i> = 0.09                   |
| <b>MIP3α (pg/mL)</b>                      | 20.68 [10.66–32.00]                      | 20.17 [12.74–35.24]                    | <i>P</i> = 0.15    | 17.87 [10.58–27.79]                            | 15.34 [10.21–26.16]                          | <i>P</i> = 0.78            | <i>P</i> = 0.20                   |
| <b>VEGF-A (pg/mL)</b>                     | 122.08 [73.51–192.35]                    | 99.21 [54.54–189.68]                   | <i>P</i> = 0.18    | 117.37 [81.51–165.53]                          | 118.92 [77.88–201.72]                        | <i>P</i> = 0.80            | <i>P</i> = 0.31                   |
| <b>R-SH (uM)</b>                          | 219.15 [188.11–265.65]                   | 244.48 [192.77–309.27]                 | <i>P</i> = 0.06    | 221.04 (SD 47.69)                              | 215.44 (SD 48.84)                            | <i>P</i> = 0.43            | <i>P</i> < 0.05                   |
| <b>FCP (mg/kg) ‡</b>                      | 815.00 [242.00–1742.50]                  | 61.50 [40.75–373.75]                   | <i>P</i> < 0.05    | 830.00 [255.00–1833.50]                        | 170.00 [41.00–970.00]                        | <i>P</i> < 0.05            | <i>P</i> = 1.00                   |
| <b>Hypoxia-associated parameters</b>      |  |  |                    |  |  |                            |                                   |
| <b>EPO (pg/mL)</b>                        | 83.63 [69.42–128.34]                     | 88.93 [57.59–136.11]                   | <i>P</i> = 0.22    | 80.44 [51.83–135.05]                           | 92.23 [65.03–156.26]                         | <i>P</i> = 0.44            | <i>P</i> = 0.21                   |
| <b>MIP-3α (pg/mL)</b>                     | 20.68 [10.66–32.00]                      | 20.17 [12.74–35.24]                    | <i>P</i> = 0.15    | 17.87 [10.58–27.79]                            | 15.34 [10.21–26.16]                          | <i>P</i> = 0.78            | <i>P</i> = 0.20                   |
| <b>VEGF-A (pg/mL)</b>                     | 122.08 [73.51–192.35]                    | 99.21 [54.54–189.68]                   | <i>P</i> = 0.18    | 117.37 [81.51–165.53]                          | 118.92 [77.88–201.72]                        | <i>P</i> = 0.80            | <i>P</i> = 0.31                   |
| <b>Other parameters</b>                   |  |  |                    |  |  |                            |                                   |
| <b>MCV (fL)</b>                           | 91.85 [87.15–94.90]                      | 90.80 [86.70–95.10]                    | <i>P</i> = 0.14    | 90.55 [87.13–94.58]                            | 91.00 [87.65–94.65]                          | <i>P</i> = 0.73            | <i>P</i> = 0.22                   |
| <b>LDH (U/L)</b>                          | 186.00 [145.75–215.75]                   | 188.50 [164.50–255.75]                 | <i>P</i> = 0.17    | 174.00 [153.00–211.50]                         | 200.50 [163.75–266.25]                       | <i>P</i> = 0.48            | <i>P</i> = 0.76                   |
| <b>Albumin (g/L)</b>                      | 42.00 [39.25–44.50]                      | 42.00 [40.00–44.25]                    | <i>P</i> = 0.08    | 41.00 [40.00–43.00]                            | 41.50 [40.00–43.25]                          | <i>P</i> = 0.50            | <i>P</i> = 0.63                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO:

erythropoietin, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 14. Changes in biochemical parameters in patients with ulcerative colitis over the course of induction therapy with either infliximab or vedolizumab, stratified by the extent of colon involvement.**

|  | Montreal E3<br>baseline<br>(n = 30) | Montreal E3<br>week 6<br>(n = 28) | Paired<br>analysis              | Montreal E1 and E2<br>baseline<br>(n = 25) | Montreal E1 and E2<br>week 6<br>(n = 25) | Paired<br>analysis              | $\Delta$ difference<br>between<br>groups |
|--|-------------------------------------|-----------------------------------|---------------------------------|--|--|---------------------------------|--|
| <b>Hemoglobin (mmol/L)</b>                             | <b>8.30 [7.78–9.13]</b>             | <b>8.00 [7.70–8.70]</b>           | $P = 0.71$                      | <b>7.90 [7.55–8.55]</b>                    | <b>8.00 [7.65–8.60]</b>                  | $P = 0.17$                      | $P = 0.27$                               |
| Hemoglobin females                                     | 7.85 [7.53–8.33]                    | 7.75 [7.53–8.05]                  | $P = 0.62$                      | 7.55 [7.28–8.00]                           | 7.70 [6.75–8.00]                         | $P = 0.39$                      | $P = 0.65$                               |
| Hemoglobin males                                       | 8.60 [8.03–9.28]                    | 8.60 [7.90–9.40]                  | $P = 1.00$                      | 8.20 [7.80–8.65]                           | 8.50 [7.93–8.70]                         | $P < 0.05$                      | $P = 0.15$                               |
| <b>Systemic iron status parameters</b>                 |                                     |                                   |                                 |  |  |                                 |  |
| <b>Ferritin (<math>\mu\text{g/L}</math>)</b>           | 43.50 [24.00–85.50]                 | 37.00 [22.00–73.00]               | $P = 0.45$                      | 46.00 [25.00–106.00]                       | 42.00 [24.50–84.50]                      | <b><math>P &lt; 0.01</math></b> | $P < 0.05$                               |
| <b>Iron (<math>\mu\text{mol/L}</math>)</b>             | 13.40 [9.33–20.15]                  | 15.10 [10.10–19.00]               | $P = 1.00$                      | 13.90 [9.70–18.50]                         | 12.90 [9.15–18.15]                       | $P = 0.62$                      | $P = 0.78$                               |
| <b>Transferrin (g/L)</b>                               | 2.50 [2.20–2.65]                    | 2.50 [2.30–2.93]                  | $P = 0.13$                      | 2.30 [2.20–2.50]                           | 2.50 [2.20–2.75]                         | $P < 0.05$                      | $P = 0.47$                               |
| <b>TIBC (<math>\mu\text{mol/L}</math>)</b>             | 61.50 [57.00–67.00]                 | 63.00 [58.00–73.00]               | $P = 0.30$                      | 58.00 [54.50–63.00]                        | 62.00 [55.00–69.00]                      | $P < 0.05$                      | $P = 0.34$                               |
| <b>TSAT (%)</b>  | 21.50 [15.00–34.00]                 | 26.00 [13.00–29.00]               | $P = 0.80$                      | 27.00 [16.25–31.75]                        | 21.00 [13.50–28.50]                      | $P = 0.31$                      | $P = 0.78$                               |
| <b>Hepcidin (ng/mL)</b>                                | 8.75 [3.63–22.66]                   | 11.57 [2.92–18.75]                | $P = 0.50$                      | 10.89 [3.37–21.90]                         | 10.30 [5.76–23.34]                       | $P = 0.24$                      | $P = 0.59$                               |
| <b>sTfR (<math>\mu\text{g/mL}</math>)</b>              | 6.94 [5.32–9.45]                    | 7.09 [6.22–8.83]                  | $P = 0.13$                      | 8.08 [5.94–11.56]                          | 9.61 [6.75–11.62]                        | $P = 0.40$                      | $P = 0.81$                               |
| <b>sTfR/log Ferritin Index</b>                         | 3.89 [3.26–5.99]                    | 4.02 [3.50–6.76]                  | $P < 0.05$                      | 4.99 [3.81–6.91]                           | 5.72 [3.51–8.20]                         | $P = 0.14$                      | $P = 0.73$                               |
| <b>Inflammation-associated parameters</b>              |                                     |                                   |                                 |  |  |                                 |  |
| <b>CRP (mg/L)</b>                                      | 2.85 [1.05–5.75]                    | 2.20 [0.60–5.00]                  | $P = 0.48$                      | 2.60 [1.10–5.50]                           | 2.30 [0.95–6.00]                         | $P = 0.22$                      | $P = 0.73$                               |
| <b>ESR (mm/hour)</b>                                   | 14.50 [6.00–43.00]                  | 15.50 [6.00–30.25]                | $P = 0.81$                      | 16.00 [8.50–36.50]                         | 13.00 [7.75–34.50]                       | $P < 0.05$                      | $P = 0.10$                               |
| <b>Leukocytes (<math>\times 10^9/\text{L}</math>)</b>  | 7.70 [5.70–9.15]                    | 6.50 [5.20–7.80]                  | $P < 0.05$                      | 7.70 [6.00–9.60]                           | 6.30 [5.30–7.20]                         | <b><math>P &lt; 0.01</math></b> | $P = 0.40$                               |
| <b>Neutrophils (<math>\times 10^9/\text{L}</math>)</b> | 5.11 [3.48–7.78]                    | 4.08 [2.66–5.14]                  | $P < 0.01$                      | 5.17 [4.05–7.64]                           | 4.22 [3.14–4.68]                         | <b><math>P &lt; 0.01</math></b> | $P = 0.47$                               |
| <b>Platelets (<math>\times 10^9/\text{L}</math>)</b>   | 301.00 [246.25–352.25]              | 268.00 [226.00–313.00]            | $P = 0.52$                      | 270.00 [234.00–349.00]                     | 265.00 [244.25–338.25]                   | $P = 0.63$                      | $P = 0.90$                               |
| <b>cFGF-23 (pmol/L)</b>                                | 0.86 [0.40–1.31]                    | 1.04 [0.54–1.34]                  | $P = 0.99$                      | 0.89 [0.37–1.39]                           | 1.31 [0.57–1.65]                         | $P = 0.14$                      | $P = 0.20$                               |
| <b>iFGF-23 (pg/mL)</b>                                 | 10.12 [7.70–14.84]                  | 9.77 [7.95–13.50]                 | $P = 0.38$                      | 10.63 [6.95–13.60]                         | 10.28 [6.59–13.73]                       | $P = 0.65$                      | $P = 0.38$                               |
| <b>c/iFGF-23 ratio</b>                                 | 0.06 [0.03–0.17]                    | 0.08 [0.04–0.15]                  | $P = 0.20$                      | 0.10 [0.04–0.16]                           | 0.10 [0.06–0.19]                         | $P = 0.76$                      | $P = 0.43$                               |
| <b>IL-1<math>\beta</math> (pg/mL)</b>                  | 0.46 [0.07–1.18]                    | 0.89 [0.34–1.27]                  | $P = 0.64$                      | 0.86 [0.22–1.28]                           | 1.15 [0.71–1.40]                         | $P = 0.72$                      | $P = 0.95$                               |
| <b>IL-6 (pg/mL)</b>                                    | 1.79 [0.77–5.02]                    | 1.42 [1.00–3.82]                  | $P = 0.43$                      | 1.67 [0.78–4.43]                           | 1.48 [1.04–2.89]                         | $P = 0.25$                      | $P = 0.57$                               |
| <b>IL-10 (pg/mL)</b>                                   | 0.96 [0.62–1.57]                    | 0.87 [0.63–1.52]                  | $P = 0.53$                      | 1.05 [0.51–1.54]                           | 0.77 [0.42–1.75]                         | $P = 0.73$                      | $P = 0.70$                               |
| <b>IL-22 (pg/mL)</b>                                   | 1.23 [0.92–1.73]                    | 0.86 [0.66–1.42]                  | <b><math>P &lt; 0.01</math></b> | 1.37 [0.71–2.42]                           | 0.97 [0.65–1.73]                         | $P = 0.71$                      | $P < 0.05$                               |
| <b>IL-23 (pg/mL)</b>                                   | 0.95 [0.46–7.38]                    | 1.71 [0.27–7.91]                  | $P = 0.94$                      | 7.62 [0.84–12.37]                          | 6.56 [0.78–8.03]                         | $P < 0.05$                      | $P < 0.05$                               |
| <b>TNF<math>\alpha</math> (pg/mL)</b>                  | 2.17 [1.81–3.14]                    | 2.31 [1.53–3.18]                  | $P = 0.85$                      | 1.88 [1.36–3.20]                           | 1.84 [0.92–3.14]                         | $P = 0.20$                      | $P = 0.40$                               |
| <b>INF-<math>\gamma</math> (pg/mL)</b>                 | 14.15 [7.84–23.15]                  | 13.41 [8.42–23.91]                | $P = 0.67$                      | 15.61 [7.73–25.06]                         | 14.55 [4.68–34.50]                       | $P = 0.93$                      | $P = 0.94$                               |
| <b>R-SH (<math>\mu\text{M}</math>)</b>                 | 228.62 [189.72–254.56]              | 227.90 [191.39–287.93]            | $P = 0.89$                      | 212.39 [180.05–263.40]                     | 224.69 [184.23–263.88]                   | $P = 0.12$                      | $P = 0.42$                               |
| <b>FCP (mg/kg) ‡</b>                                   | 885.50 [196.75–1925.25]             | 113.50 [40.75–602.75]             | $P < 0.01$                      | 830.00 [255.00–1650.00]                    | 150.00 [41.00–685.00]                    | $P < 0.05$                      | $P = 0.57$                               |
| <b>Erythropoiesis or hypoxia-associated parameters</b> |                                     |                                   |                                 |  |  |                                 |  |
| <b>EPO (pg/mL)</b>                                     | 80.73 [55.44–129.74]                | 89.85 [62.75–131.18]              | $P = 0.83$                      | 83.98 [63.33–130.10]                       | 90.87 [59.04–149.08]                     | $P = 0.65$                      | $P = 0.59$                               |
| <b>MIP-3<math>\alpha</math> (pg/mL)</b>                | 25.38 [14.00–33.61]                 | 20.52 [13.71–28.30]               | $P = 0.14$                      | 16.70 [7.95–20.68]                         | 15.34 [8.23–31.51]                       | $P = 0.78$                      | $P = 0.28$                               |
| <b>VEGF-A (pg/mL)</b>                                  | 143.04 [80.51–215.07]               | 114.05 [76.13–199.89]             | $P = 0.35$                      | 115.60 [73.00–183.84]                      | 113.36 [64.76–189.15]                    | $P = 0.84$                      | $P = 0.50$                               |
| <b>Other parameters</b>                                |                                     |                                   |                                 |  |  |                                 |  |
| <b>MCV (fL)</b>  | 90.35 [86.78–94.63]                 | 90.80 [86.10–95.10]               | $P = 0.63$                      | 92.20 [87.25–94.85]                        | 90.90 [88.85–94.68]                      | $P = 0.76$                      | $P = 0.82$                               |
| <b>LDH (U/L)</b>                                       | 170.00 [146.50–205.25]              | 197.00 [163.50–253.25]            | $P = 0.55$                      | 189.00 [155.50–222.00]                     | 198.00 [169.00–278.50]                   | $P = 0.12$                      | $P = 0.47$                               |
| <b>Albumin (g/L)</b>                                   | 41.00 [39.50–43.00]                 | 41.50 [40.00–44.00]               | $P = 0.61$                      | 41.00 [39.00–43.00]                        | 42.00 [39.50–44.00]                      | $P = 0.05$                      | $P = 0.49$                               |

Data are presented as means  $\pm$  standard deviation (SD) or median [interquartile ranges]. 'Montreal E3' includes patients with pancolitis. 'Montreal E1 and E2' includes patients with distal or left-sided colitis. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1 $\beta$ : interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10:

Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , EPO: erythropoietin, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 15. Changes in biochemical parameters in patients with Crohn's disease over the course of induction therapy with either infliximab or vedolizumab, stratified by involvement of the terminal ileum.**

|   | Terminal ileum<br>Involvement baseline<br>(n = 59) | Terminal ileum<br>Involvement week 6<br>(n = 58) | Paired<br>analysis         | No terminal ileum<br>involvement baseline<br>(n = 7) | No terminal ileum<br>Involvement week 6<br>(n = 7) | Paired<br>analysis | $\Delta$ difference<br>between<br>groups |
|---|--|--|----------------------------|--|--|--------------------|--|
| <b>Hemoglobin (mmol/L)</b>                      | <b>8.10 [7.40–8.50]</b>                            | <b>8.10 [7.50–8.90]</b>                          | <b><i>P</i> &lt; 0.05</b>  | <b>7.70 [6.90–8.10]</b>                              | <b>8.05 [6.40–8.85]</b>                            | <i>P</i> = 0.92    | <i>P</i> = 0.68                          |
| Hemoglobin females                              | 7.77 (SD 0.78)                                     | 7.75 [7.33–8.48]                                 | <i>P</i> = 0.11            | NA   | NA   | NA                 | NA                                       |
| Hemoglobin males                                | 8.30 [7.90–9.15]                                   | 8.40 [8.08–9.20]                                 | <i>P</i> < 0.05            | 7.45 [6.60–8.08]                                     | NA   | NA                 | NA                                       |
| <b>Systemic iron status parameters</b>          |  |  |                            |  |  |                    |  |
| <b>Ferritin (<math>\mu</math>g/L)</b>           | 45.00 [27.00–80.00]                                | 36.00 [23.25–63.75]                              | <b><i>P</i> &lt; 0.001</b> | 89.00 [15.00–248.00]                                 | 76.50 [23.50–163.75]                               | <i>P</i> = 0.08    | <i>P</i> = 0.10                          |
| <b>Iron (<math>\mu</math>mol/L)</b>             | 11.05 [7.75–15.98]                                 | 13.95 [9.40–19.00]                               | <i>P</i> = 0.10            | 10.00 [6.00–14.00]                                   | 13.35 [8.18–17.50]                                 | <i>P</i> = 0.34    | <i>P</i> = 0.68                          |
| <b>Transferrin (g/L)</b>                        | 2.50 [2.20–2.90]                                   | 2.70 [2.40–3.15]                                 | <b><i>P</i> &lt; 0.001</b> | 2.30 [2.00–2.40]                                     | 2.25 [2.10–2.50]                                   | <i>P</i> = 0.34    | <i>P</i> = 0.77                          |
| <b>TIBC (<math>\mu</math>mol/L)</b>             | 63.50 [55.00–73.00]                                | 66.50 [60.00–78.25]                              | <b><i>P</i> &lt; 0.001</b> | 57.00 [50.00–61.00]                                  | 56.00 [53.00–62.00]                                | <i>P</i> = 0.50    | <i>P</i> = 0.72                          |
| <b>TSAT (%)</b>                                 | 17.50 [12.00–27.00]                                | 19.50 [13.75–28.00]                              | <i>P</i> = 0.33            | 19.00 [8.75–27.50]                                   | 22.00 [10.00–28.00]                                | <i>P</i> = 0.12    | <i>P</i> = 0.47                          |
| <b>Hepcidin (ng/mL)</b>                         | 20.60 [7.95–39.65]                                 | 9.01 [3.11–21.27]                                | <b><i>P</i> &lt; 0.01</b>  | 21.19 [8.11–55.91]                                   | 18.22 [0.87–53.33]                                 | <i>P</i> < 0.05    | <i>P</i> = 0.82                          |
| <b>sTfR (<math>\mu</math>g/mL)</b>              | 7.64 [6.23–10.02]                                  | 7.23 [6.09–9.04]                                 | <i>P</i> = 0.67            | 5.72 [5.46–7.60]                                     | 7.05 [4.84–7.77]                                   | <i>P</i> = 1.00    | <i>P</i> = 0.90                          |
| <b>sTfR/log Ferritin Index</b>                  | 4.73 [3.58–5.82]                                   | 4.73 [3.46–6.52]                                 | <i>P</i> = 0.27            | 3.48 [2.32–5.99]                                     | 3.56 [2.81–5.45]                                   | <i>P</i> = 0.60    | <i>P</i> = 0.81                          |
| <b>Inflammation-associated parameters</b>       |  |  |                            |  |  |                    |  |
| <b>CRP (mg/L)</b>                               | 4.55 [1.60–12.25]                                  | 1.60 [0.88–6.00]                                 | <b><i>P</i> &lt; 0.001</b> | 10.00 [5.20–35.00]                                   | 4.15 [2.48–15.75]                                  | <i>P</i> < 0.05    | <i>P</i> = 0.13                          |
| <b>ESR (mm/hour)</b>                            | 18.00 [9.00–35.00]                                 | 12.00 [4.00–23.50]                               | <b><i>P</i> &lt; 0.001</b> | 46.00 [13.00–69.25]                                  | 14.00 [3.50–64.50]                                 | <i>P</i> = 0.14    | <i>P</i> = 0.44                          |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 8.00 [6.20–10.60]                                  | 6.60 [5.08–8.00]                                 | <b><i>P</i> &lt; 0.01</b>  | 6.80 [5.80–10.70]                                    | 7.00 [4.35–8.63]                                   | <i>P</i> < 0.05    | <i>P</i> = 0.26                          |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 5.15 [4.00–7.52]                                   | 4.01 [3.04–5.77]                                 | <b><i>P</i> &lt; 0.001</b> | 4.61 [3.94–8.27]                                     | 4.59 [3.60–6.45]                                   | <i>P</i> = 0.08    | <i>P</i> = 0.36                          |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 327.00 [259.50–383.00]                             | 288.50 [244.75–359.50]                           | <b><i>P</i> &lt; 0.001</b> | 391.00 [212.00–481.00]                               | 261.50 [204.25–420.75]                             | <i>P</i> = 0.60    | <i>P</i> = 0.99                          |
| <b>cFGF-23 (pmol/L)</b>                         | 0.91 [0.57–1.59]                                   | 0.86 [0.40–1.78]                                 | <i>P</i> = 0.54            | 0.76 [0.44–1.12]                                     | 0.64 [0.51–1.17]                                   | <i>P</i> = 0.61    | <i>P</i> = 0.57                          |
| <b>iFGF-23 (pg/mL)</b>                          | 9.80 [6.47–12.69]                                  | 8.08 [5.47–11.18]                                | <i>P</i> = 0.44            | 13.89 [11.51–15.86]                                  | 8.11 [7.09–11.10]                                  | <i>P</i> < 0.05    | <i>P</i> < 0.05                          |
| <b>c/iFGF-23 ratio</b>                          | 0.10 [0.06–0.16]                                   | 0.13 [0.05–0.19]                                 | <i>P</i> = 0.32            | 0.05 [0.04–0.06]                                     | 0.07 [0.06–0.09]                                   | <i>P</i> = 0.18    | <i>P</i> = 0.54                          |
| <b>IL-1<math>\beta</math> (pg/mL)</b>           | 1.21 [0.84–1.29]                                   | 1.13 [0.71–1.30]                                 | <i>P</i> = 0.46            | 1.25 [0.99–1.41]                                     | 1.08 [0.99–1.33]                                   | <i>P</i> = 0.06    | <i>P</i> = 0.25                          |
| <b>IL-6 (pg/mL)</b>                             | 2.38 [1.28–3.52]                                   | 1.81 [1.02–2.70]                                 | <i>P</i> < 0.05            | 2.66 [1.90–2.87]                                     | 2.02 [1.02–2.16]                                   | <i>P</i> = 0.31    | <i>P</i> = 0.65                          |
| <b>IL-10 (pg/mL)</b>                            | 0.75 [0.38–1.53]                                   | 1.01 [0.47–1.65]                                 | <b><i>P</i> &lt; 0.01</b>  | 1.56 [1.42–1.68]                                     | 1.78 [1.56–2.07]                                   | <i>P</i> < 0.05    | <i>P</i> = 0.21                          |
| <b>IL-22 (pg/mL)</b>                            | 1.10 [0.64–1.97]                                   | 0.97 [0.53–1.26]                                 | <b><i>P</i> &lt; 0.01</b>  | 1.39 [1.10–3.03]                                     | 1.48 [0.86–4.17]                                   | <i>P</i> = 1.00    | <i>P</i> = 0.38                          |
| <b>IL-23 (pg/mL)</b>                            | 7.14 [6.00–7.90]                                   | 7.12 [5.76–8.81]                                 | <i>P</i> = 0.05            | 6.76 [6.38–7.71]                                     | 8.42 [6.49–9.16]                                   | <i>P</i> = 0.35    | <i>P</i> = 0.84                          |
| <b>TNF<math>\alpha</math> (pg/mL)</b>           | 2.08 [1.54–2.41]                                   | 1.72 [0.88–2.10]                                 | <b><i>P</i> &lt; 0.001</b> | 3.13 [2.61–5.62]                                     | 2.42 [2.01–4.73]                                   | <i>P</i> = 0.24    | <i>P</i> = 0.48                          |
| <b>INF-<math>\gamma</math> (pg/mL)</b>          | 23.18 [8.53–45.42]                                 | 17.06 [6.56–31.80]                               | <i>P</i> = 0.06            | 22.95 [9.75–25.91]                                   | 17.81 [9.42–45.05]                                 | <i>P</i> = 0.40    | <i>P</i> = 0.94                          |
| <b>R-SH (<math>\mu</math>M)</b>                 | 245.08 (SD 56.27)                                  | 235.29 [211.86–296.35]                           | <i>P</i> = 0.34            | 268.67 [246.77–282.77]                               | 290.33 [166.23–312.55]                             | <i>P</i> = 1.00    | <i>P</i> = 0.98                          |
| <b>FCP (mg/kg) ‡</b>                            | 667.00 [288.25–2067.50]                            | 157.50 [46.00–1437.50]                           | <i>P</i> = 0.20            | NA   | 147.50 [108.75–5946.25]                            | NA                 | NA                                       |
| <b>Hypoxia-associated parameters</b>            |  |  |                            |  |  |                    |  |
| <b>EPO (pg/mL)</b>                              | 76.72 [49.46–119.09]                               | 64.47 [49.46–97.05]                              | <i>P</i> = 0.06            | 101.53 [59.52–182.80]                                | 65.37 [41.65–141.78]                               | <i>P</i> = 0.50    | <i>P</i> = 0.88                          |
| <b>MIP-3<math>\alpha</math> (pg/mL)</b>         | 19.94 [12.41–33.71]                                | 17.16 [9.22–26.72]                               | <i>P</i> < 0.05            | 19.36 [15.78–27.77]                                  | 15.52 [14.11–19.85]                                | <i>P</i> < 0.05    | <i>P</i> = 0.92                          |
| <b>VEGF-A (pg/mL)</b>                           | 115.35 [77.56–225.89]                              | 114.75 [63.52–170.19]                            | <i>P</i> < 0.05            | 125.30 [67.45–296.30]                                | 110.87 [57.19–325.39]                              | <i>P</i> = 0.18    | <i>P</i> = 0.74                          |
| <b>Other parameters</b>                         |  |  |                            |  |  |                    |  |
| <b>MCV (fL)</b>                                 | 89.19 (SD 5.25)                                    | 89.60 (SD 5.21)                                  | <i>P</i> = 0.15            | 89.00 [82.50–93.70]                                  | 89.70 [84.80–94.93]                                | <i>P</i> = 0.25    | <i>P</i> = 0.48                          |
| <b>LDH (U/L)</b>                                | 159.00 [135.00–206.00]                             | 158.50 [129.25–196.50]                           | <i>P</i> = 0.47            | 197.00 [123.00–263.00]                               | 166.50 [124.00–298.75]                             | <i>P</i> = 0.60    | <i>P</i> = 0.93                          |
| <b>Albumin (g/L)</b>                            | 42.00 [39.75–44.00]                                | 43.00 [41.00–44.00]                              | <i>P</i> < 0.05            | 40.00 [38.00–42.00]                                  | 41.00 [37.75–42.50]                                | <i>P</i> = 0.89    | <i>P</i> = 0.35                          |

Data are presented as means  $\pm$  standard deviation (SD) or median [interquartile ranges]. 'Terminal ileum involvement' includes patients with Montreal L1 or L3 classification. 'No terminal ileum involvement' includes patients with ulcerative colitis, IBD-unclassified, and Montreal L2 classified Crohn's disease. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cells,

TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1 $\beta$ : interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , EPO: erythropoietin, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 16. Changes in biochemical parameters in patients with Crohn's disease undergoing induction therapy with either infliximab or vedolizumab.**

|   | Infliximab<br>baseline<br>(n = 54) | Infliximab<br>week 6<br>(n = 54) | Paired<br>analysis         | Vedolizumab<br>baseline<br>(n = 12) | Vedolizumab<br>week 6<br>(n = 11) | Paired<br>analysis | $\Delta$ difference<br>between<br>biologicals |
|---|------------------------------------|----------------------------------|----------------------------|-------------------------------------|-----------------------------------|--------------------|---|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.00 (SD 0.84)</b>              | <b>8.20 [7.55–8.80]</b>          | <b><i>P</i> &lt; 0.05</b>  | <b>7.80 [7.23–8.53]</b>             | <b>8.00 [7.40–8.90]</b>           | <i>P</i> = 0.65    | <i>P</i> = 0.43                               |
| Hemoglobin females                        | 7.80 [7.20–8.40]                   | 7.70 [7.30–8.50]                 | <i>P</i> = 0.26            | 7.70 [7.25–8.45]                    | 7.75 [7.40–8.68]                  | <i>P</i> = 0.45    | <i>P</i> = 0.93                               |
| Hemoglobin males                          | 8.25 [7.85–9.13]                   | 8.45 [8.10–9.23]                 | <b><i>P</i> &lt; 0.05</b>  | NA                                  | NA                                | NA                 | NA  |
| <b>Systemic iron status parameters</b>    |                                    |                                  |                            |                                     |                                   |                    |   |
| Ferritin ( $\mu$ g/L)                     | 44.00 [22.50–91.75]                | 36.00 [22.50–73.00]              | <b><i>P</i> &lt; 0.001</b> | 60.50 [29.75–81.50]                 | 37.00 [33.00–63.00]               | <i>P</i> = 0.18    | <i>P</i> = 0.65                               |
| Iron ( $\mu$ mol/L)                       | 12.80 [7.80–16.60]                 | 14.00 [11.50–19.40]              | <i>P</i> = 0.06            | 8.75 [4.68–10.40]                   | 9.20 [6.00–15.40]                 | <i>P</i> = 0.97    | <i>P</i> = 0.48                               |
| Transferrin (g/L)                         | 2.50 [2.20–2.90]                   | 2.60 [2.30–3.10]                 | <b><i>P</i> &lt; 0.001</b> | 2.45 [2.20–2.90]                    | 2.50 [2.40–3.00]                  | <i>P</i> < 0.05    | <i>P</i> = 0.44                               |
| TIBC ( $\mu$ mol/L)                       | 62.00 [55.00–73.00]                | 66.00 [57.00–77.50]              | <b><i>P</i> &lt; 0.001</b> | 62.00 [55.00–73.00]                 | 62.00 [60.00–77.00]               | <i>P</i> = 0.06    | <i>P</i> = 0.58                               |
| TSAT (%)                                  | 19.50 [12.25–27.00]                | 21.50 [14.75–28.25]              | <i>P</i> = 0.18            | 13.00 [9.00–18.00]                  | 13.00 [8.00–22.00]                | <i>P</i> = 0.72    | <i>P</i> = 0.49                               |
| Hepcidin (ng/mL)                          | 17.54 [7.70–42.18]                 | 7.91 [2.22–21.01]                | <b><i>P</i> &lt; 0.001</b> | 21.55 [10.06–27.40]                 | 16.59 [9.01–27.01]                | <i>P</i> = 0.18    | <i>P</i> = 0.64                               |
| sTfR ( $\mu$ g/mL)                        | 7.66 [5.97–10.15]                  | 7.18 [6.01–8.89]                 | <i>P</i> = 0.25            | 6.99 [5.66–7.65]                    | 7.32 [6.67–8.98]                  | <i>P</i> = 0.11    | <i>P</i> = 0.06                               |
| sTfR/log Ferritin Index                   | 4.70 [3.51–6.10]                   | 4.45 [3.32–6.39]                 | <i>P</i> = 0.74            | 4.18 [2.56–5.19]                    | 5.25 [3.24–6.20]                  | <i>P</i> = 0.11    | <i>P</i> = 0.12                               |
| <b>Inflammation-associated parameters</b> |                                    |                                  |                            |                                     |                                   |                    |   |
| CRP (mg/L)                                | 5.20 [1.75–12.50]                  | 1.60 [0.55–4.60]                 | <b><i>P</i> &lt; 0.001</b> | 7.60 [1.80–21.50]                   | 6.00 [1.80–14.00]                 | <i>P</i> = 0.29    | <i>P</i> = 0.36                               |
| ESR (mm/hour)                             | 17.00 [9.00–34.00]                 | 9.00 [3.00–20.00]                | <b><i>P</i> &lt; 0.001</b> | 36.50 [15.00–65.25]                 | 33.00 [13.00–46.00]               | <i>P</i> = 0.51    | <i>P</i> = 0.09                               |
| WBC ( $\times 10^9/L$ )                   | 7.65 [5.95–9.93]                   | 6.50 [4.60–7.90]                 | <b><i>P</i> &lt; 0.001</b> | 8.00 [6.35–12.13]                   | 8.00 [6.00–14.00]                 | <i>P</i> = 0.72    | <i>P</i> = 0.05                               |
| Neutrophils ( $\times 10^9/L$ )           | 5.39 [4.03–7.34]                   | 4.01 [2.92–4.93]                 | <b><i>P</i> &lt; 0.001</b> | 4.97 [3.55–9.10]                    | 6.28 [3.15–9.49]                  | <i>P</i> = 0.66    | <i>P</i> < 0.05                               |
| Platelets ( $\times 10^9/L$ )             | 327.00 [257.00–385.00]             | 286.00 [240.50–356.50]           | <b><i>P</i> &lt; 0.001</b> | 327.00 [223.00–409.00]              | 288.00 [267.00–389.00]            | <i>P</i> = 0.77    | <i>P</i> < 0.05                               |
| cFGF-23 (pmol/L)                          | 1.03 [0.58–1.56]                   | 0.91 [0.46–1.80]                 | <i>P</i> = 0.35            | 0.74 [0.45–0.98]                    | 0.59 [0.25–0.82]                  | <i>P</i> = 0.21    | <i>P</i> = 0.21                               |
| iFGF-23 (pg/mL)                           | 10.34 [6.34–13.24]                 | 8.03 [5.22–11.26]                | <i>P</i> = 0.14            | 9.77 [7.82–13.70]                   | 8.21 [6.87–10.28]                 | <i>P</i> = 0.21    | <i>P</i> = 0.90                               |
| c/iFGF-23 ratio                           | 0.10 [0.05–0.17]                   | 0.12 [0.06–0.22]                 | <i>P</i> = 0.16            | 0.08 [0.05–0.10]                    | 0.04 [0.03–0.14]                  | <i>P</i> = 0.79    | <i>P</i> = 0.50                               |
| IL-1 $\beta$ (pg/mL)                      | 1.23 [1.09–1.33]                   | 1.16 [0.91–1.33]                 | <i>P</i> = 0.12            | 0.65 [0.18–1.39]                    | 0.88 [0.26–1.36]                  | <i>P</i> = 1.00    | <i>P</i> = 0.53                               |
| IL-6 (pg/mL)                              | 2.53 [1.45–3.21]                   | 1.62 [1.00–2.36]                 | <b><i>P</i> &lt; 0.01</b>  | 2.13 [1.29–5.81]                    | 2.66 [1.98–4.26]                  | <i>P</i> = 0.33    | <i>P</i> = 0.05                               |
| IL-10 (pg/mL)                             | 1.21 [0.39–1.57]                   | 1.45 [0.46–1.78]                 | <b><i>P</i> &lt; 0.01</b>  | 0.53 [0.48–1.04]                    | 0.65 [0.48–1.57]                  | <i>P</i> = 0.05    | <i>P</i> = 0.96                               |
| IL-22 (pg/mL)                             | 1.12 [0.63–1.65]                   | 1.00 [0.53–1.26]                 | <b><i>P</i> &lt; 0.01</b>  | 1.78 [0.75–3.32]                    | 1.04 [0.95–3.39]                  | <i>P</i> = 0.37    | <i>P</i> = 0.90                               |
| IL-23 (pg/mL)                             | 7.40 [6.74–7.91]                   | 7.38 [6.53–8.94]                 | <i>P</i> = 0.11            | 1.49 [0.29–6.11]                    | 4.30 [0.06–8.66]                  | <i>P</i> = 0.08    | <i>P</i> = 0.45                               |
| TNF $\alpha$ (pg/mL)                      | 2.16 [1.54–2.55]                   | 1.64 [0.79–2.29]                 | <b><i>P</i> &lt; 0.001</b> | 2.08 [1.92–2.53]                    | 2.05 [1.99–2.77]                  | <i>P</i> = 0.79    | <i>P</i> < 0.01                               |
| INF- $\gamma$ (pg/mL)                     | 22.95 [9.08–37.52]                 | 16.34 [6.56–28.78]               | <i>P</i> = 0.08            | 23.22 [7.87–88.01]                  | 28.19 [10.64–71.29]               | <i>P</i> = 0.29    | <i>P</i> = 0.67                               |
| R-SH ( $\mu$ M)                           | 246.11 [208.25–285.26]             | 244.66 [211.86–300.94]           | <i>P</i> = 0.31            | 231.67 [210.54–286.27]              | 223.73 [204.91–280.41]            | <i>P</i> = 0.93    | <i>P</i> = 0.76                               |
| FCP (mg/kg) ‡                             | 772.50 [280.00–2347.50]            | 120.00 [40.00–185.00]            | <i>P</i> = 0.50            | 337.50 [164.50–2097.25]             | 850.00 [110.00–2170.00]           | <i>P</i> = 1.00    | <i>P</i> = 0.47                               |
| <b>Hypoxia-associated parameters</b>      |                                    |                                  |                            |                                     |                                   |                    |   |
| EPO (pg/mL)                               | 86.00 [50.59–147.16]               | 64.47 [45.10–118.29]             | <b><i>P</i> &lt; 0.01</b>  | 56.77 [40.06–76.48]                 | 66.45 [54.02–88.42]               | <i>P</i> = 0.11    | <i>P</i> < 0.05                               |
| MIP-3 $\alpha$ (pg/mL)                    | 19.36 [11.73–28.90]                | 16.30 [9.22–23.36]               | <b><i>P</i> &lt; 0.01</b>  | 27.23 [20.20–49.48]                 | 17.77 [11.49–63.59]               | <i>P</i> = 0.77    | <i>P</i> = 0.77                               |
| VEGF-A (pg/mL)                            | 112.87 [74.50–230.24]              | 106.68 [61.34–170.19]            | <b><i>P</i> &lt; 0.05</b>  | 126.07 [88.70–229.48]               | 146.30 [73.53–225.93]             | <i>P</i> = 0.93    | <i>P</i> = 0.15                               |
| <b>Other parameters</b>                   |                                    |                                  |                            |                                     |                                   |                    |   |
| MCV (fL)                                  | 89.50 [84.95–93.00]                | 90.30 [85.30–93.35]              | <b><i>P</i> &lt; 0.05</b>  | 90.70 [85.40–93.20]                 | 89.60 [87.30–91.40]               | <i>P</i> = 0.88    | <i>P</i> = 0.63                               |
| LDH (U/L)                                 | 157.00 [134.00–204.00]             | 165.50 [137.75–199.75]           | <i>P</i> = 0.14            | 172.00 [136.00–229.00]              | 130.50 [121.25–165.50]            | <i>P</i> < 0.05    | <i>P</i> < 0.05                               |
| Albumin (g/L)                             | 42.00 [40.00–44.00]                | 42.50 [41.00–44.00]              | <i>P</i> < 0.05            | 40.00 [38.25–42.75]                 | 41.50 [39.25–43.00]               | <i>P</i> = 0.77    | <i>P</i> = 0.54                               |

Data are presented as means  $\pm$  standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell counts, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23,

sTfR: soluble Transferrin Receptor, IL-1 $\beta$ : interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , EPO: erythropoietin, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 17. Changes in biochemical parameters in patients with ulcerative colitis undergoing induction therapy with either infliximab or vedolizumab.**

|  | Infliximab<br>baseline<br>(n = 17) | Infliximab<br>week 6<br>(n = 17) | Paired<br>analysis | Vedolizumab<br>baseline<br>(n = 39) | Vedolizumab<br>week 6<br>(n = 37) | Paired<br>analysis               | $\Delta$ difference<br>between<br>biologicals |
|--|------------------------------------|----------------------------------|--------------------|-------------------------------------|-----------------------------------|----------------------------------|---|
| <b>Hemoglobin (mmol/L)</b>                             | <b>7.90 [7.25–8.55]</b>            | <b>8.00 [7.65–8.60]</b>          | $P = 0.30$         | <b>8.30 [7.80–9.00]</b>             | <b>8.00 [7.70–8.70]</b>           | $P = 0.88$                       | $P = 0.32$                                    |
| Hemoglobin females                                     | 7.50 [7.23–8.00]                   | 7.35 [6.60–7.95]                 | $P = 0.20$         | 7.75 [7.50–8.33]                    | 7.75 [7.58–8.03]                  | $P = 0.72$                       | $P = 0.22$                                    |
| Hemoglobin males                                       | 8.20 [7.30–8.65]                   | 8.50 [7.75–8.65]                 | $P = 0.08$         | 8.50 [7.95–9.35]                    | 8.60 [7.95–9.45]                  | $P = 0.57$                       | $P = 0.11$                                    |
| <b>Systemic iron status parameters</b>                 |                                    |                                  |                    |                                     |                                   |                                  |   |
| <b>Ferritin (<math>\mu\text{g/L}</math>)</b>           | 53.00 [24.50–120.50]               | 42.00 [18.00–77.50]              | $P < 0.01$         | 40.00 [24.00–80.00]                 | 33.00 [23.00–77.25]               | $P = 0.13$                       | $P = 0.13$                                    |
| <b>Iron (<math>\mu\text{mol/L}</math>)</b>             | 16.00 [10.50–19.50]                | 15.00 [10.30–20.00]              | $P = 0.96$         | 12.90 [9.00–18.00]                  | 13.25 [9.40–17.75]                | $P = 0.73$                       | $P = 0.80$                                    |
| <b>Transferrin (g/L)</b>                               | 2.40 [2.30–2.60]                   | 2.40 [2.20–2.70]                 | $P = 0.65$         | 2.40 [2.20–2.60]                    | 2.55 [2.30–2.80]                  | <b><math>P &lt; 0.01</math></b>  | $P = 0.14$                                    |
| <b>TIBC (<math>\mu\text{mol/L}</math>)</b>             | 58.00 [56.50–64.50]                | 59.00 [54.50–68.00]              | $P = 0.80$         | 61.00 [56.00–67.00]                 | 64.50 [58.00–70.75]               | <b><math>P &lt; 0.05</math></b>  | $P = 0.15$                                    |
| <b>TSAT (%)</b>  | 27.00 [18.00–37.00]                | 27.91 [17.50–31.50]              | $P = 0.78$         | 19.00 [15.00–30.00]                 | 21.00 [13.00–28.00]               | $P = 0.47$                       | $P = 0.88$                                    |
| <b>Hepcidin (ng/mL)</b>                                | 10.51 [4.33–26.60]                 | 7.46 [2.25–15.72]                | $P = 0.12$         | 10.09 [3.08–20.53]                  | 11.61 [4.73–22.85]                | $P = 0.59$                       | $P = 0.50$                                    |
| <b>sTfR (<math>\mu\text{g/mL}</math>)</b>              | 8.08 [6.47–11.74]                  | 6.86 [5.94–10.71]                | $P < 0.05$         | 7.19 [5.26–9.97]                    | 8.46 [6.68–11.10]                 | <b><math>P &lt; 0.01</math></b>  | <b><math>P &lt; 0.01</math></b>               |
| <b>sTfR/log Ferritin Index</b>                         | 4.48 [3.51–7.87]                   | 4.33 [3.50–6.83]                 | $P = 0.80$         | 4.51 [3.09–6.52]                    | 5.32 [3.54–8.37]                  | <b><math>P &lt; 0.01</math></b>  | $P < 0.05$                                    |
| <b>Inflammation-associated parameters</b>              |                                    |                                  |                    |                                     |                                   |                                  |   |
| <b>CRP (mg/L)</b>                                      | 4.50 [2.00–14.00]                  | 1.00 [0.55–5.00]                 | $P < 0.01$         | 2.40 [0.90–5.00]                    | 2.65 [1.20–5.00]                  | $P = 0.64$                       | <b><math>P &lt; 0.01</math></b>               |
| <b>ESR (mm/hour)</b>                                   | 35.00 [8.50–46.50]                 | 12.00 [7.00–32.00]               | $P < 0.01$         | 13.00 [6.00–28.00]                  | 14.00 [6.00–30.25]                | $P = 0.95$                       | $P < 0.05$                                    |
| <b>WBC (<math>\times 10^9/\text{L}</math>)</b>         | 7.40 [5.90–8.50]                   | 5.30 [4.05–6.80]                 | $P < 0.01$         | 8.00 [5.70–10.30]                   | 6.65 [5.55–7.88]                  | <b><math>P &lt; 0.01</math></b>  | $P = 0.69$                                    |
| <b>Neutrophils (<math>\times 10^9/\text{L}</math>)</b> | 5.07 [3.14–6.00]                   | 2.95 [2.21–4.92]                 | $P < 0.05$         | 5.25 [3.76–7.88]                    | 4.27 [3.37–5.00]                  | <b><math>P &lt; 0.001</math></b> | $P = 0.71$                                    |
| <b>Platelets (<math>\times 10^9/\text{L}</math>)</b>   | 264.00 [248.00–303.00]             | 258.00 [230.00–283.00]           | $P = 0.18$         | 302.00 [239.00–357.00]              | 289.00 [230.00–337.00]            | $P = 0.68$                       | $P = 0.40$                                    |
| <b>cFGF-23 (pmol/L)</b>                                | 1.21 [0.39–2.53]                   | 1.17 [0.58–2.31]                 | $P = 0.57$         | 0.82 [0.35–1.22]                    | 1.15 [0.54–1.55]                  | $P = 0.26$                       | $P = 1.00$                                    |
| <b>iFGF-23 (pg/mL)</b>                                 | 8.95 [4.41–17.32]                  | 6.91 [4.32–13.65]                | $P = 0.85$         | 10.90 [7.78–14.64]                  | 9.93 [8.27–13.70]                 | $P = 0.82$                       | $P = 0.76$                                    |
| <b>c/iFGF-23 ratio</b>                                 | 0.15 [0.05–0.34]                   | 0.10 [0.05–0.37]                 | $P = 0.64$         | 0.06 [0.04–0.12]                    | 0.09 [0.04–0.15]                  | $P = 0.68$                       | $P = 0.83$                                    |
| <b>IL-1<math>\beta</math> (pg/mL)</b>                  | 1.31 [0.25–1.48]                   | 1.03 [0.25–1.27]                 | $P = 0.27$         | 0.60 [0.12–1.11]                    | 0.93 [0.41–1.36]                  | $P = 0.22$                       | $P = 0.11$                                    |
| <b>IL-6 (pg/mL)</b>                                    | 0.96 [0.46–5.42]                   | 1.03 [0.37–1.32]                 | $P = 0.21$         | 1.79 [0.99–4.54]                    | 2.23 [1.27–3.72]                  | $P = 0.43$                       | $P = 0.40$                                    |
| <b>IL-10 (pg/mL)</b>                                   | 1.14 [0.38–1.74]                   | 0.77 [0.40–1.98]                 | $P = 0.65$         | 0.96 [0.62–1.56]                    | 0.89 [0.59–1.53]                  | $P = 0.43$                       | $P = 0.88$                                    |
| <b>IL-22 (pg/mL)</b>                                   | 1.23 [0.48–2.20]                   | 0.94 [0.505–1.58]                | $P = 0.21$         | 1.26 [0.91–1.75]                    | 0.86 [0.65–1.46]                  | $P < 0.05$                       | $P = 0.63$                                    |
| <b>IL-23 (pg/mL)</b>                                   | 7.38 [4.09–15.21]                  | 7.44 [6.82–8.45]                 | $P = 0.27$         | 1.13 [0.55–8.06]                    | 1.51 [0.31–7.76]                  | $P = 0.23$                       | $P = 0.47$                                    |
| <b>TNF<math>\alpha</math> (pg/mL)</b>                  | 1.44 [0.95–3.03]                   | 0.78 [0.53–1.73]                 | $P < 0.01$         | 2.07 [1.68–3.15]                    | 2.71 [1.85–3.51]                  | $P = 0.16$                       | <b><math>P &lt; 0.001</math></b>              |
| <b>INF-<math>\gamma</math> (pg/mL)</b>                 | 12.09 [5.88–21.01]                 | 12.14 [2.76–35.57]               | $P = 0.20$         | 15.68 [8.04–25.23]                  | 13.79 [8.13–27.17]                | $P = 0.67$                       | $P = 0.19$                                    |
| <b>R-SH (<math>\mu\text{M}</math>)</b>                 | 210.49 [182.09–232.76]             | 240.86 [189.37–297.67]           | $P = 0.10$         | 233.56 [190.12–262.21]              | 226.72 [181.47–264.80]            | $P = 0.90$                       | $P = 0.15$                                    |
| <b>FCP (mg/kg) ‡</b>                                   | 1835.00 [727.50–2162.50]           | NA                               | NA                 | 805.00 [215.00–1530.00]             | 138.00 [41.00–595.00]             | <b><math>P &lt; 0.01</math></b>  | NA  |
| <b>Hypoxia-associated parameters</b>                   |                                    |                                  |                    |                                     |                                   |                                  |   |
| <b>EPO (pg/mL)</b>                                     | 88.20 [68.29–144.61]               | 97.86 [48.27–158.55]             | $P = 0.19$         | 82.93 [55.73–120.38]                | 90.04 [65.85–135.22]              | $P = 0.41$                       | $P = 0.19$                                    |
| <b>MIP-3<math>\alpha</math> (pg/mL)</b>                | 17.37 [9.35–26.69]                 | 13.25 [10.69–20.47]              | $P < 0.05$         | 20.90 [10.72–32.43]                 | 22.10 [13.71–34.03]               | $P = 0.90$                       | $P = 0.09$                                    |
| <b>VEGF-A (pg/mL)</b>                                  | 120.09 [60.60–185.32]              | 89.24 [50.08–186.06]             | $P = 0.19$         | 119.14 [80.98–190.13]               | 119.26 [76.42–207.80]             | $P = 0.83$                       | $P = 0.28$                                    |
| <b>Other parameters</b>                                |                                    |                                  |                    |                                     |                                   |                                  |   |
| <b>MCV (fL)</b>  | 91.80 [87.45–93.65]                | 90.80 [88.80–93.25]              | $P = 0.45$         | 91.40 [87.10–94.70]                 | 90.80 [86.10–96.10]               | $P = 0.81$                       | $P = 0.57$                                    |
| <b>LDH (U/L)</b>                                       | 183.00 [147.50–214.50]             | 178.50 [157.00–231.00]           | $P = 0.57$         | 176.00 [152.00–216.50]              | 204.00 [168.00–268.25]            | $P = 0.19$                       | $P = 0.74$                                    |
| <b>Albumin (g/L)</b>                                   | 42.00 [38.50–43.00]                | 42.00 [39.00–44.00]              | $P = 0.24$         | 41.00 [40.00–43.00]                 | 42.00 [40.00–44.00]               | $P = 0.25$                       | $P = 0.99$                                    |

Data are presented as means  $\pm$  standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell counts, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1 $\beta$ : interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , EPO: erythropoietin,



MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 18. Changes in biochemical parameters in patients with Crohn's disease, stratified by adequate response at week 14 to induction therapy with either infliximab or vedolizumab.**

|   | Responders CD<br>baseline<br>(n = 52) | Responders CD<br>week 6<br>(n = 52) | Paired<br>analysis  | Non-responders CD<br>baseline<br>(n = 10) | Non-responders CD<br>week 6<br>(n = 10) | Paired<br>analysis | $\Delta$ difference<br>between<br>groups |
|---|---------------------------------------|-------------------------------------|---------------------|---|---|--------------------|--|
| <b>Hemoglobin (mmol/L)</b>                      | <b>8.10 [7.40–8.50]</b>               | <b>8.15 [7.53–8.90]</b>             | <b>P &lt; 0.05</b>  | <b>7.445 [6.88–8.08]</b>                  | <b>7.55 [6.78–8.23]</b>                 | P = 1.00           | P = 0.44                                 |
| Hemoglobin females                              | 7.83 (SD 0.74)                        | 7.75 [7.33–8.58]                    | P = 0.13            | 7.20 [6.50–7.80]                          | 7.40 [5.95–7.85]                        | P = 0.72           | P = 0.41                                 |
| Hemoglobin males                                | 8.30 [8.10–9.20]                      | 8.45 [8.13–9.20]                    | P < 0.05            | 7.90 [7.05–8.15]                          | 8.00 [6.45–9.10]                        | P = 0.69           | P = 0.75                                 |
| <b>Systemic iron status parameters</b>          |                                       |                                     |                     |   |   |                    |  |
| <b>Ferritin (<math>\mu</math>g/L)</b>           | 48.50 [32.00–88.00]                   | 38.50 [25.00–65.25]                 | <b>P &lt; 0.001</b> | 31.50 [17.25–143.75]                      | 34.50 [9.75–129.50]                     | P = 0.20           | P = 0.99                                 |
| <b>Iron (<math>\mu</math>mol/L)</b>             | 12.00 [8.00–15.80]                    | 14.00 [10.70–19.00]                 | P = 0.15            | 5.85 [3.95–11.93]                         | 8.10 [4.55–17.23]                       | P = 0.17           | P = 0.53                                 |
| <b>Transferrin (g/L)</b>                        | 2.45 [2.20–2.90]                      | 2.60 [2.40–3.10]                    | <b>P &lt; 0.001</b> | 2.55 [2.28–2.93]                          | 2.70 [2.18–3.20]                        | P = 0.15           | P = 0.80                                 |
| <b>TIBC (<math>\mu</math>mol/L)</b>             | 61.00 [55.00–73.00]                   | 64.50 [60.00–76.50]                 | <b>P &lt; 0.001</b> | 64.50 [56.25–73.75]                       | 67.50 [54.50–81.25]                     | P = 0.15           | P = 0.81                                 |
| <b>TSAT (%)</b>                                 | 18.00 [13.00–27.00]                   | 20.71 [15.00–28.75]                 | P = 0.37            | 10.00 [5.75–19.00]                        | 10.50 [6.50–25.75]                      | P = 0.24           | P = 0.63                                 |
| <b>Hepcidin (ng/mL)</b>                         | 20.90 [9.02–41.21]                    | 8.71 [2.62–21.07]                   | <b>P &lt; 0.001</b> | 15.66 [5.86–43.71]                        | 10.08 [4.02–54.82]                      | P = 0.59           | P = 0.32                                 |
| <b>sTfR (<math>\mu</math>g/mL)</b>              | 7.57 [5.96–9.65]                      | 7.14 [5.72–8.49]                    | P = 0.24            | 7.08 [5.81–11.10]                         | 7.79 [6.50–11.34]                       | P = 0.24           | P = 0.10                                 |
| <b>sTfR/log Ferritin Index</b>                  | 4.62 [3.53–5.80]                      | 4.50 [3.31–5.97]                    | P = 0.63            | 4.84 [2.74–9.42]                          | 5.93 [3.11–10.29]                       | P = 0.17           | P = 0.11                                 |
| <b>Inflammation-associated parameters</b>       |                                       |                                     |                     |   |   |                    |  |
| <b>CRP (mg/L)</b>                               | 4.50 [1.50–12.00]                     | 1.60 [0.83–4.60]                    | <b>P &lt; 0.001</b> | 16.15 [3.70–41.25]                        | 12.00 [1.43–15.50]                      | P < 0.05           | P = 0.16                                 |
| <b>ESR (mm/hour)</b>                            | 16.00 [9.00–33.00]                    | 11.00 [3.75–20.50]                  | <b>P &lt; 0.001</b> | 36.50 [21.75–68.75]                       | 30.50 [16.25–45.00]                     | P = 0.14           | P = 0.98                                 |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 7.25 [5.70–10.18]                     | 6.40 [4.60–7.90]                    | <b>P &lt; 0.01</b>  | 10.00 [7.78–11.80]                        | 7.95 [6.88–10.90]                       | P = 0.11           | P = 0.68                                 |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 5.06 [3.68–7.37]                      | 3.98 [2.89–5.06]                    | <b>P &lt; 0.01</b>  | 7.46 [5.36–9.25]                          | 5.48 [4.03–8.05]                        | P = 0.14           | P = 0.72                                 |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 311.50 [252.75–381.00]                | 278.50 [238.75–331.00]              | <b>P &lt; 0.001</b> | 386.70 (SD 105.45)                        | 376.00 [277.75–475.75]                  | P = 0.64           | P = 0.17                                 |
| <b>cFGF-23 (pmol/L)</b>                         | 0.84 [0.48–1.37]                      | 0.82 [0.41–1.56]                    | P = 0.69            | 1.22 [0.71–1.99]                          | 1.42 [0.33–1.78]                        | P = 0.88           | P = 0.87                                 |
| <b>iFGF-23 (pg/mL)</b>                          | 9.77 [6.20–13.10]                     | 7.83 [5.41–10.92]                   | P = 0.35            | 10.67 [8.37–13.24]                        | 8.56 [7.75–13.86]                       | P = 0.24           | P = 0.66                                 |
| <b>c/iFGF-23 ratio</b>                          | 0.10 [0.05–0.15]                      | 0.12 [0.05–0.19]                    | P = 0.13            | 0.08 [0.06–0.19]                          | 0.09 [0.04–0.19]                        | P = 0.39           | P = 0.14                                 |
| <b>IL-1<math>\beta</math> (pg/mL)</b>           | 1.22 [1.01–1.29]                      | 1.13 [0.88–1.30]                    | P = 0.09            | 0.99 [0.38–1.47]                          | 1.20 [0.21–1.32]                        | P = 0.72           | P = 0.95                                 |
| <b>IL-6 (pg/mL)</b>                             | 2.43 [1.52–3.44]                      | 1.71 [1.00–2.70]                    | <b>P &lt; 0.05</b>  | 2.74 [1.17–5.93]                          | 2.20 [1.27–3.85]                        | P = 0.52           | P = 0.93                                 |
| <b>IL-10 (pg/mL)</b>                            | 1.17 [0.38–1.57]                      | 1.43 [0.47–1.76]                    | <b>P &lt; 0.01</b>  | 0.57 [0.50–1.28]                          | 0.64 [0.46–1.58]                        | P = 0.11           | P = 0.78                                 |
| <b>IL-22 (pg/mL)</b>                            | 1.11 [0.61–1.77]                      | 0.96 [0.51–1.26]                    | <b>P &lt; 0.05</b>  | 2.01 [1.08–3.48]                          | 1.08 [1.02–2.90]                        | P = 0.20           | P = 0.58                                 |
| <b>IL-23 (pg/mL)</b>                            | 7.40 [6.45–8.14]                      | 7.38 [5.87–8.94]                    | P = 0.10            | 6.00 [1.44–7.06]                          | NA                                      | NA                 | NA                                       |
| <b>TNF<math>\alpha</math> (pg/mL)</b>           | 2.13 [1.65–2.52]                      | 1.69 [0.90–2.10]                    | <b>P &lt; 0.001</b> | 1.78 [1.40–2.22]                          | 2.01 [1.09–4.40]                        | P = 0.65           | P < 0.05                                 |
| <b>INF-<math>\gamma</math> (pg/mL)</b>          | 22.95 [8.21–44.57]                    | 16.34 [6.83–30.37]                  | P < 0.05            | 22.74 [11.21–105.00]                      | 31.86 [7.62–74.55]                      | P = 0.72           | P = 0.69                                 |
| <b>R-SH (<math>\mu</math>M)</b>                 | 244.88 [207.02–283.16]                | 244.66 [211.41–298.87]              | P = 0.10            | 231.67 [214.42–291.45]                    | 213.35 [168.89–243.46]                  | P < 0.05           | P < 0.01                                 |
| <b>FCP (mg/kg) ‡</b>                            | 615.00 [216.25–2067.50]               | 117.50 [42.00–190.00]               | P = 0.13            | 724.50 [377.50–2875.00]                   | 2170.00 [360.00–4037.50]                | P = 0.50           | P = 0.22                                 |
| <b>Hypoxia-associated parameters</b>            |                                       |                                     |                     |   |   |                    |  |
| <b>EPO (pg/mL)</b>                              | 77.60 [49.05–118.86]                  | 64.47 [45.35–94.74]                 | <b>P &lt; 0.05</b>  | 76.58 [47.50–184.06]                      | 73.76 [42.74–146.33]                    | P = 0.80           | P = 0.20                                 |
| <b>MIP-3<math>\alpha</math> (pg/mL)</b>         | 20.04 [10.96–33.99]                   | 16.44 [8.77–28.23]                  | <b>P &lt; 0.05</b>  | 19.82 [16.35–27.50]                       | 16.30 [12.36–20.34]                     | P = 0.33           | P = 0.67                                 |
| <b>VEGF-A (pg/mL)</b>                           | 117.96 [69.80–237.29]                 | 116.55 [62.27–167.55]               | P = 0.10            | 98.01 [71.21–244.88]                      | 96.82 [51.55–240.67]                    | P = 0.39           | P = 0.72                                 |
| <b>Other parameters</b>                         |                                       |                                     |                     |   |   |                    |  |
| <b>MCV (fL)</b>                                 | 89.65 [85.08–92.85]                   | 90.15 [86.08–93.38]                 | P < 0.05            | 90.60 [82.30–93.30]                       | 87.80 [84.80–90.83]                     | P = 0.96           | P = 0.84                                 |
| <b>LDH (U/L)</b>                                | 159.00 [134.00–207.00]                | 160.50 [135.25–199.25]              | P = 0.38            | 163.00 [143.50–217.50]                    | 145.00 [120.25–175.25]                  | P = 0.86           | P = 0.51                                 |
| <b>Albumin (g/L)</b>                            | 41.00 [40.00–44.00]                   | 43.00 [41.00–44.00]                 | P < 0.05            | 38.50 [37.50–44.00]                       | 41.50 [36.25–43.25]                     | P = 0.59           | P = 0.18                                 |

Data are presented as means  $\pm$  standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1 $\beta$ : interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , EPO: erythropoietin,

MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 19. Changes in biochemical parameters in patients with ulcerative colitis, stratified by adequate (non-)response at week 14 to induction therapy with either infliximab or vedolizumab.**

|   | Responders UC<br>baseline<br>(n = 40) | Responders UC<br>week 6<br>(n = 40) | Paired<br>analysis         | Non-responders UC<br>baseline<br>(n = 13) | Non-responders UC<br>week 6<br>(n = 12) | Paired<br>analysis | Δ difference<br>between<br>groups |
|---|---------------------------------------|-------------------------------------|----------------------------|---|---|--------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.19 (SD 0.91)</b>                 | <b>8.00 [7.70–8.70]</b>             | <i>P</i> = 0.58            | <b>8.20 [7.80–8.45]</b>                   | <b>8.25 [7.90–8.50]</b>                 | <i>P</i> = 0.44    | <i>P</i> = 0.55                   |
| Hemoglobin females                        | 7.65 [7.28–8.03]                      | 7.75 [6.98–8.00]                    | <i>P</i> = 0.34            | NA  | NA                                      | NA                 | NA                                |
| Hemoglobin males                          | 8.52 (SD 0.86)                        | 8.57 (SD 0.86)                      | <i>P</i> = 0.43            | 8.05 [7.43–8.40]                          | 8.30 [7.90–8.50]                        | <i>P</i> = 0.21    | <i>P</i> = 0.57                   |
| <b>Systemic iron status parameters</b>    |                                       |                                     |                            |   |   |                    |                                   |
| <b>Ferritin (μg/L)</b>                    | 46.00 [24.50–96.50]                   | 39.50 [22.25–77.50]                 | <i>P</i> < 0.01            | 28.00 [21.00–149.00]                      | 35.50 [23.00–90.25]                     | <i>P</i> = 0.58    | <i>P</i> = 0.65                   |
| <b>Iron (μmol/L)</b>                      | 14.45 [9.78–19.23]                    | 14.95 [9.58–19.00]                  | <i>P</i> = 0.68            | 11.00 [8.00–13.85]                        | 13.60 [8.23–15.55]                      | <i>P</i> = 0.64    | <i>P</i> = 0.54                   |
| <b>Transferrin (g/L)</b>                  | 2.40 [2.20–2.60]                      | 2.50 [2.30–2.80]                    | <i>P</i> < 0.01            | 2.30 [2.10–2.68]                          | 2.35 [2.05–2.70]                        | <i>P</i> = 1.00    | <i>P</i> = 0.18                   |
| <b>TIBC (μmol/L)</b>                      | 60.50 [56.25–66.00]                   | 63.00 [58.00–70.75]                 | <i>P</i> < 0.05            | 57.00 [53.00–67.00]                       | 58.00 [51.00–69.00]                     | <i>P</i> = 0.86    | <i>P</i> = 0.29                   |
| <b>TSAT (%)</b>                           | 25.50 [15.00–33.75]                   | 21.50 [13.25–29.00]                 | <i>P</i> = 0.42            | 19.00 [13.25–26.00]                       | 24.00 [13.00–27.00]                     | <i>P</i> = 0.81    | <i>P</i> = 0.54                   |
| <b>Hepcidin (ng/mL)</b>                   | 9.86 [3.31–20.40]                     | 9.49 [3.51–25.60]                   | <i>P</i> = 0.34            | 5.49 [2.60–22.73]                         | 12.64 [1.58–17.41]                      | <i>P</i> = 0.43    | <i>P</i> = 0.79                   |
| <b>sTfR (μg/mL)</b>                       | 7.47 [5.46–11.01]                     | 8.19 [6.32–10.85]                   | <i>P</i> = 0.16            | 8.01 [6.10–10.22]                         | 8.16 [5.70–10.85]                       | <i>P</i> = 0.72    | <i>P</i> = 0.95                   |
| <b>sTfR/log Ferritin Index</b>            | 4.49 [3.44–6.79]                      | 5.17 [3.53–7.59]                    | <i>P</i> < 0.05            | 4.68 [3.43–7.42]                          | 4.63 [3.45–8.20]                        | <i>P</i> = 0.43    | <i>P</i> = 0.49                   |
| <b>Inflammation-associated parameters</b> |                                       |                                     |                            |   |   |                    |                                   |
| <b>CRP (mg/L)</b>                         | 2.55 [0.90–5.00]                      | 1.95 [0.60–4.68]                    | <i>P</i> = 0.06            | 4.90 [1.45–8.80]                          | 4.25 [1.03–10.65]                       | <i>P</i> = 0.84    | <i>P</i> = 0.43                   |
| <b>ESR (mm/hour)</b>                      | 14.50 [6.00–37.25]                    | 12.00 [6.00–26.00]                  | <i>P</i> < 0.05            | 23.00 [7.00–40.00]                        | 28.50 [9.75–36.75]                      | <i>P</i> = 0.84    | <i>P</i> = 0.21                   |
| <b>WBC (x 10<sup>9</sup>/L)</b>           | 7.60 [5.73–8.80]                      | 6.25 [5.13–7.68]                    | <b><i>P</i> &lt; 0.001</b> | 7.60 [5.85–10.30]                         | 6.55 [5.45–7.25]                        | <i>P</i> = 0.13    | <i>P</i> = 0.47                   |
| <b>Neutrophils (x 10<sup>9</sup>/L)</b>   | 5.07 [3.70–7.37]                      | 4.02 [2.69–4.98]                    | <b><i>P</i> &lt; 0.001</b> | 5.02 [3.72–8.04]                          | 4.32 [2.81–5.06]                        | <i>P</i> = 0.14    | <i>P</i> = 0.46                   |
| <b>Platelets (x 10<sup>9</sup>/L)</b>     | 271.00 [239.00–320.25]                | 265.00 [242.00–301.00]              | <i>P</i> = 0.29            | 293.00 [238.50–359.00]                    | 257.00 [224.50–343.75]                  | <i>P</i> = 0.81    | <i>P</i> = 0.62                   |
| <b>cFGF-23 (pmol/L)</b>                   | 0.89 [0.51–1.27]                      | 1.04 [0.49–1.63]                    | <i>P</i> = 0.18            | 1.08 [0.38–2.89]                          | 1.29 [0.99–1.43]                        | <i>P</i> = 0.81    | <i>P</i> = 0.71                   |
| <b>iFGF-23 (pg/mL)</b>                    | 10.37 [7.59–14.77]                    | 9.99 [7.63–13.75]                   | <i>P</i> = 0.93            | 9.48 [6.68–15.21]                         | 9.33 [6.64–12.37]                       | <i>P</i> = 0.70    | <i>P</i> = 0.63                   |
| <b>c/iFGF-23 ratio</b>                    | 0.07 [0.04–0.15]                      | 0.08 [0.04–0.15]                    | <i>P</i> = 0.46            | 0.10 [0.04–0.21]                          | 0.12 [0.06–0.24]                        | <i>P</i> = 0.81    | <i>P</i> = 0.91                   |
| <b>IL-1β (pg/mL)</b>                      | 0.46 [0.12–1.24]                      | 0.93 [0.17–1.32]                    | <i>P</i> = 0.72            | 1.07 [0.29–1.36]                          | 1.20 [0.87–1.39]                        | <i>P</i> = 0.75    | <i>P</i> = 0.83                   |
| <b>IL-6 (pg/mL)</b>                       | 1.58 [0.76–4.23]                      | 1.34 [0.98–2.35]                    | <i>P</i> = 0.06            | 2.64 [0.91–5.54]                          | 3.67 [1.05–4.24]                        | <i>P</i> = 0.53    | <i>P</i> = 0.16                   |
| <b>IL-10 (pg/mL)</b>                      | 1.00 [0.62–1.58]                      | 0.78 [0.47–1.67]                    | <i>P</i> = 0.21            | 1.26 [0.63–1.68]                          | 0.99 [0.61–1.60]                        | <i>P</i> = 0.48    | <i>P</i> = 0.34                   |
| <b>IL-22 (pg/mL)</b>                      | 1.32 [0.91–2.31]                      | 0.84 [0.65–1.57]                    | <i>P</i> < 0.01            | 0.97 [0.66–1.49]                          | 0.92 [0.55–1.41]                        | <i>P</i> = 0.53    | <i>P</i> = 0.18                   |
| <b>IL-23 (pg/mL)</b>                      | 0.99 [0.55–7.68]                      | 1.71 [0.47–7.29]                    | <i>P</i> = 0.12            | 7.87 [1.23–9.67]                          | 7.91 [0.19–8.88]                        | <i>P</i> = 0.46    | <i>P</i> = 1.00                   |
| <b>TNFα (pg/mL)</b>                       | 1.91 [1.37–2.83]                      | 1.93 [1.12–3.06]                    | <i>P</i> = 0.87            | 3.05 [1.80–4.01]                          | 2.96 [1.11–3.16]                        | <i>P</i> = 0.39    | <i>P</i> = 0.24                   |
| <b>INF-γ (pg/mL)</b>                      | 15.41 [8.83–24.70]                    | 13.77 [7.43–34.22]                  | <i>P</i> = 0.73            | 10.76 [4.86–24.26]                        | 13.68 [11.66–22.31]                     | <i>P</i> = 0.89    | <i>P</i> = 0.89                   |
| <b>R-SH (uM)</b>                          | 216.54 [189.68–257.83]                | 233.41 [187.45–289.22]              | <i>P</i> = 0.16            | 191.43 [180.05–240.05]                    | 209.96 [181.71–238.08]                  | <i>P</i> = 0.94    | <i>P</i> = 0.53                   |
| <b>FCP (mg/kg) ‡</b>                      | 913.00 [255.00–1741.75]               | 138.00 [40.50–258.50]               | <b><i>P</i> &lt; 0.01</b>  | 855.00 [682.50–2497.50]                   | NA                                      | NA                 | NA                                |
| <b>Hypoxia-associated parameters</b>      |                                       |                                     |                            |   |   |                    |                                   |
| <b>EPO (pg/mL)</b>                        | 91.82 [72.37–141.51]                  | 92.23 [60.98–155.56]                | <i>P</i> = 0.60            | 70.29 [56.05–92.93]                       | 90.68 [56.74–119.82]                    | <i>P</i> = 0.18    | <i>P</i> = 0.14                   |
| <b>MIP-3α (pg/mL)</b>                     | 17.56 [8.43–29.91]                    | 15.56 [12.41–27.16]                 | <i>P</i> = 0.27            | 21.66 [17.44–34.70]                       | 22.16 [13.16–33.21]                     | <i>P</i> = 0.81    | <i>P</i> = 0.37                   |
| <b>VEGF-A (pg/mL)</b>                     | 117.84 [73.15–171.75]                 | 104.72 [69.24–190.52]               | <i>P</i> = 0.46            | 119.14 [78.45–209.95]                     | 119.26 [63.25–195.89]                   | <i>P</i> = 0.94    | <i>P</i> = 0.63                   |
| <b>Other parameters</b>                   |                                       |                                     |                            |   |   |                    |                                   |
| <b>MCV (fL)</b>                           | 91.20 [87.13–95.65]                   | 90.50 [87.90–94.70]                 | <i>P</i> = 0.21            | 90.10 [82.85–92.55]                       | 92.10 [84.38–94.15]                     | <i>P</i> = 0.58    | <i>P</i> = 0.30                   |
| <b>LDH (U/L)</b>                          | 179.00 [158.75–205.25]                | 197.00 [168.25–249.25]              | <i>P</i> = 0.06            | 176.00 [141.00–297.00]                    | 198.00 [143.00–347.00]                  | <i>P</i> = 0.59    | <i>P</i> = 0.31                   |
| <b>Albumin (g/L)</b>                      | 42.00 [40.00–43.00]                   | 42.50 [40.00–44.00]                 | <i>P</i> < 0.05            | 40.00 [38.50–43.00]                       | 41.00 [39.00–42.00]                     | <i>P</i> = 0.92    | <i>P</i> = 0.28                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin,

MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing, ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 20. Changes in biochemical parameters in patients with IBD responding to induction therapy with either infliximab or vedolizumab.**

|   | Responders IFX<br>baseline<br>(n = 59) | Responders IFX<br>week 6<br>(n = 59) | Paired<br>analysis         | Responders VEDO<br>baseline<br>(n = 33) | Responders VEDO<br>week 6<br>(n = 33) | Paired<br>analysis        | Δ difference<br>between<br>groups |
|---|--|--------------------------------------|----------------------------|---|---------------------------------------|---------------------------|-----------------------------------|
| <b>Hemoglobin (mmol/L)</b>                      | <b>8.10 [7.40–08.50]</b>               | <b>8.10 [7.60–8.60]</b>              | <i>P</i> < 0.05            | <b>8.10 [7.65–8.95]</b>                 | <b>8.00 [7.70–9.18]</b>               | <i>P</i> = 0.29           | <i>P</i> = 0.40                   |
| Hemoglobin females                              | 7.70 [7.30–8.30]                       | 7.70 [7.20–8.40]                     | <i>P</i> = 0.52            | 7.70 [7.50–8.30]                        | 7.80 [7.50–8.00]                      | <i>P</i> = 0.65           | <i>P</i> = 0.89                   |
| Hemoglobin males                                | 8.30 [7.80–9.10]                       | 8.40 [8.00–9.15]                     | <i>P</i> < 0.05            | 8.70 [8.08–9.50]                        | 8.90 [8.00–9.50]                      | <i>P</i> = 0.25           | <i>P</i> = 0.14                   |
| <b>Systemic iron status parameters</b>          |  |                                      |                            |   |                                       |                           |                                   |
| <b>Ferritin (μg/L)</b>                          | 49.00 [32.00–97.00]                    | 41.00 [25.00–70.00]                  | <b><i>P</i> &lt; 0.001</b> | 46.00 [24.00–82.50]                     | 34.00 [23.00–71.50]                   | <i>P</i> < 0.05           | <i>P</i> = 0.41                   |
| <b>Iron (μmol/L)</b>                            | 14.00 [8.70–17.25]                     | 15.32 (SD 5.82)                      | <i>P</i> = 0.07            | 13.50 [9.55–19.15]                      | 12.90 [8.80–17.70]                    | <i>P</i> = 0.13           | <i>P</i> < 0.05                   |
| <b>Transferrin (g/L)</b>                        | 2.40 [2.20–2.80]                       | 2.50 [2.30–3.00]                     | <b><i>P</i> &lt; 0.001</b> | 2.40 [2.20–2.65]                        | 2.50 [2.40–2.80]                      | <b><i>P</i> &lt; 0.01</b> | <i>P</i> = 1.00                   |
| <b>TIBC (μmol/L)</b>                            | 61.00 [56.00–71.00]                    | 64.00 [57.00–75.00]                  | <b><i>P</i> &lt; 0.001</b> | 60.00 [55.00–67.00]                     | 64.00 [60.50–70.50]                   | <b><i>P</i> &lt; 0.01</b> | <i>P</i> = 0.76                   |
| <b>TSAT (%)</b>                                 | 22.00 [13.00–28.00]                    | 24.00 [16.00–31.00]                  | <i>P</i> = 0.16            | 20.00 [15.00–31.50]                     | 19.00 [13.00–28.00]                   | <i>P</i> = 0.06           | <i>P</i> < 0.05                   |
| <b>Hepcidin (ng/mL)</b>                         | 15.61 [7.20–41.33]                     | 7.91 [2.83–18.52]                    | <b><i>P</i> &lt; 0.001</b> | 13.01 [3.88–21.55]                      | 11.87 [5.43–26.26]                    | <i>P</i> = 0.56           | <i>P</i> = 0.05                   |
| <b>sTfR (μg/mL)</b>                             | 7.77 [6.00–10.13]                      | 7.12 [5.88–8.60]                     | <b><i>P</i> &lt; 0.05</b>  | 7.13 [5.32–10.03]                       | 8.59 [6.70–10.63]                     | <b><i>P</i> &lt; 0.01</b> | <b><i>P</i> &lt; 0.001</b>        |
| <b>sTfR/log Ferritin Index</b>                  | 4.68 [3.56–5.99]                       | 4.19 [3.45–5.86]                     | <i>P</i> = 0.96            | 4.39 [2.99–6.63]                        | 5.36 [3.57–7.48]                      | <b><i>P</i> &lt; 0.01</b> | <b><i>P</i> &lt; 0.01</b>         |
| <b>Inflammation-associated parameters</b>       |  |                                      |                            |   |                                       |                           |                                   |
| <b>CRP (mg/L)</b>                               | 4.55 [1.58–13.50]                      | 1.60 [0.50–4.60]                     | <b><i>P</i> &lt; 0.001</b> | 2.30 [0.90–4.20]                        | 2.20 [1.20–4.65]                      | <i>P</i> = 0.85           | <b><i>P</i> &lt; 0.001</b>        |
| <b>ESR (mm/hour)</b>                            | 16.00 [7.75–35.25]                     | 9.00 [4.00–18.50]                    | <b><i>P</i> &lt; 0.001</b> | 13.00 [6.00–27.00]                      | 13.50 [7.00–30.75]                    | <i>P</i> = 0.38           | <b><i>P</i> &lt; 0.01</b>         |
| <b>WBC (<math>\times 10^9/L</math>)</b>         | 7.30 [5.70–9.70]                       | 6.30 [4.30–7.80]                     | <b><i>P</i> &lt; 0.001</b> | 8.00 [5.70–10.55]                       | 6.70 [5.50–8.10]                      | <i>P</i> < 0.05           | <i>P</i> = 0.38                   |
| <b>Neutrophils (<math>\times 10^9/L</math>)</b> | 5.09 [3.80–6.94]                       | 3.49 [2.40–4.88]                     | <b><i>P</i> &lt; 0.001</b> | 4.99 [3.67–8.63]                        | 4.31 [3.42–5.21]                      | <b><i>P</i> &lt; 0.01</b> | <i>P</i> = 0.64                   |
| <b>Platelets (<math>\times 10^9/L</math>)</b>   | 306.50 [259.50–376.25]                 | 275.00 [245.00–333.00]               | <b><i>P</i> &lt; 0.001</b> | 265.50 [220.00–333.75]                  | 271.50 [227.75–300.50]                | <i>P</i> = 0.72           | <i>P</i> < 0.05                   |
| <b>cFGF-23 (pmol/L)</b>                         | 0.87 [0.52–1.53]                       | 0.88 [0.42–1.83]                     | <i>P</i> = 0.33            | 0.76 [0.48–1.19]                        | 1.03 [0.47–1.49]                      | <i>P</i> = 0.46           | <i>P</i> = 0.90                   |
| <b>iFGF-23 (pg/mL)</b>                          | 9.81 [5.86–13.55]                      | 7.56 [5.07–10.13]                    | <i>P</i> = 0.59            | 10.12 [7.70–14.71]                      | 10.14 [8.09–13.73]                    | <i>P</i> = 0.74           | <i>P</i> = 0.91                   |
| <b>c/iFGF-23 ratio</b>                          | 0.10 [0.05–0.17]                       | 0.11 [0.06–0.23]                     | <i>P</i> = 0.38            | 0.06 [0.04–0.11]                        | 0.08 [0.04–0.14]                      | <i>P</i> = 0.97           | <i>P</i> = 0.56                   |
| <b>IL-1β (pg/mL)</b>                            | 1.23 [1.05–1.31]                       | 1.08 [0.77–1.29]                     | <i>P</i> = 0.06            | 0.46 [0.12–1.04]                        | 0.91 [0.26–1.34]                      | <i>P</i> = 0.43           | <i>P</i> = 0.09                   |
| <b>IL-6 (pg/mL)</b>                             | 2.38 [1.07–3.72]                       | 1.46 [0.68–1.99]                     | <b><i>P</i> &lt; 0.01</b>  | 1.71 [0.91–3.85]                        | 1.82 [1.21–2.88]                      | <i>P</i> = 0.78           | <i>P</i> = 0.09                   |
| <b>IL-10 (pg/mL)</b>                            | 1.20 [0.38–1.58]                       | 1.42 [0.44–1.78]                     | <i>P</i> < 0.05            | 0.93 [0.59–1.57]                        | 0.83 [0.53–1.63]                      | <i>P</i> = 0.43           | <i>P</i> < 0.05                   |
| <b>IL-22 (pg/mL)</b>                            | 1.16 [0.60–1.97]                       | 0.94 [0.50–1.27]                     | <b><i>P</i> = 0.002</b>    | 1.15 [0.76–1.73]                        | 0.85 [0.66–1.54]                      | <i>P</i> < 0.05           | <i>P</i> = 0.90                   |
| <b>IL-23 (pg/mL)</b>                            | 7.54 [6.82–8.54]                       | 7.38 [6.63–8.82]                     | <i>P</i> = 0.68            | 0.89 [0.42–7.21]                        | 1.18 [0.29–7.27]                      | <i>P</i> = 0.88           | <i>P</i> = 0.62                   |
| <b>TNFα (pg/mL)</b>                             | 2.08 [1.33–2.53]                       | 1.51 [0.64–2.00]                     | <b><i>P</i> &lt; 0.001</b> | 1.95 [1.65–2.61]                        | 2.08 [1.74–3.30]                      | <i>P</i> = 0.14           | <b><i>P</i> &lt; 0.001</b>        |
| <b>INF-γ (pg/mL)</b>                            | 19.66 [9.66–40.11]                     | 17.20 [6.59–32.03]                   | <i>P</i> = 0.32            | 15.55 [7.73–26.67]                      | 13.75 [7.51–28.19]                    | <i>P</i> = 0.37           | <i>P</i> = 0.97                   |
| <b>R-SH (uM)</b>                                | 238.23 [191.64–274.66]                 | 244.63 [206.05–299.12]               | <i>P</i> = 0.11            | 216.68 [200.78–271.40]                  | 236.64 [196.55–287.02]                | <i>P</i> = 0.14           | <i>P</i> = 0.91                   |
| <b>FCP (mg/kg) ‡</b>                            | 1170.00 [276.25–2245.00]               | 120.00 [40.00–221.25]                | <i>P</i> < 0.05            | 410.00 [235.00–1306.00]                 | 115.00 [41.00–217.00]                 | <b><i>P</i> &lt; 0.01</b> | <i>P</i> = 0.17                   |
| <b>Hypoxia-associated parameters</b>            |  |                                      |                            |   |                                       |                           |                                   |
| <b>EPO (pg/mL)</b>                              | 83.87 [50.75–137.68]                   | 64.16 [48.32–114.10]                 | <b><i>P</i> &lt; 0.01</b>  | 83.98 [49.34–133.25]                    | 74.32 [64.06–128.28]                  | <i>P</i> = 0.94           | <i>P</i> = 0.18                   |
| <b>MIP-3α (pg/mL)</b>                           | 18.60 [10.55–30.79]                    | 13.98 [8.77–20.84]                   | <b><i>P</i> &lt; 0.01</b>  | 19.23 [10.53–31.96]                     | 22.10 [11.49–36.19]                   | <i>P</i> = 0.89           | <i>P</i> = 0.06                   |
| <b>VEGF-A (pg/mL)</b>                           | 120.09 [67.45–220.09]                  | 109.18 [61.80–168.87]                | <i>P</i> = 0.06            | 115.60 [74.03–157.80]                   | 120.24 [73.57–217.59]                 | <i>P</i> = 0.71           | <i>P</i> = 0.29                   |
| <b>Other parameters</b>                         |  |                                      |                            |   |                                       |                           |                                   |
| <b>MCV (fL)</b>                                 | 89.65 [85.28–93.08]                    | 90.30 [86.00–93.40]                  | <i>P</i> = 0.10            | 91.10 [87.13–95.65]                     | 90.25 [88.18–95.23]                   | <i>P</i> = 0.39           | <i>P</i> = 0.11                   |
| <b>LDH (U/L)</b>                                | 164.00 [134.00–203.00]                 | 168.00 [143.00–199.25]               | <i>P</i> = 0.16            | 181.00 [159.00–227.00]                  | 200.50 [166.50–249.25]                | <i>P</i> = 0.25           | <i>P</i> = 0.91                   |
| <b>Albumin (g/L)</b>                            | 41.50 [40.00–44.00]                    | 42.50 [41.00–44.25]                  | <b><i>P</i> &lt; 0.05</b>  | 41.50 [40.00–43.00]                     | 43.00 [40.00–44.00]                   | <i>P</i> = 0.14           | <i>P</i> = 0.48                   |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin,

MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 21. Changes in biochemical parameters in patients with IBD stratified by (non-)response to induction therapy with infliximab.**

|   | Responders IFX<br>baseline<br>(n = 59) | Responders IFX<br>week 6<br>(n = 59) | Paired<br>analysis | Non-responders IFX<br>baseline<br>(n = 9) | Non-responders IFX<br>week 6<br>(n = 9) | Paired<br>analysis | Baseline<br>difference<br>between<br>groups |
|---|--|--------------------------------------|--------------------|---|---|--------------------|---|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.10 [7.40–08.50]</b>               | <b>8.10 [7.60–8.60]</b>              | $P < 0.05$         | <b>7.9 [6.60–8.25]</b>                    | <b>8.50 [7.55–8.80]</b>                 | $P = 0.15$         | $P = 0.22$                                  |
| Hemoglobin females                        | 7.70 [7.30–8.30]                       | 7.70 [7.20–8.40]                     | $P = 0.52$         | NA  | NA                                      | NA                 | NA  |
| Hemoglobin males                          | 8.30 [7.80–9.10]                       | 8.40 [8.00–9.15]                     | $P < 0.05$         | 8.00 [7.60–8.30]                          | 8.50 [7.90–8.90]                        | $P = 0.06$         | $P = 0.19$                                  |
| <b>Systemic iron status parameters</b>    |  |                                      |                    |   |   |                    |   |
| Ferritin (μg/L)                           | 49.00 [32.00–97.00]                    | 41.00 [25.00–70.00]                  | $P < 0.001$        | 22.00 [16.50–146.50]                      | 26.00 [11.00–109.50]                    | $P = 0.17$         | $P = 0.61$                                  |
| Iron (μmol/L)                             | 14.00 [8.70–17.25]                     | 15.32 (SD 5.82)                      | $P = 0.07$         | 13.90 [5.80–19.50]                        | 13.60 [6.00–15.40]                      | $P = 0.68$         | $P = 0.99$                                  |
| Transferrin (g/L)                         | 2.40 [2.20–2.80]                       | 2.50 [2.30–3.00]                     | $P < 0.001$        | 2.45 [2.03–2.93]                          | 2.40 [2.00–2.95]                        | $P = 0.80$         | $P = 0.81$                                  |
| TIBC (μmol/L)                             | 61.00 [56.00–71.00]                    | 64.00 [57.00–75.00]                  | $P < 0.001$        | 60.00 [52.00–72.50]                       | 59.00 [49.50–75.00]                     | $P = 0.59$         | $P = 0.75$                                  |
| TSAT (%)                                  | 22.00 [13.00–28.00]                    | 24.00 [16.00–31.00]                  | $P = 0.16$         | 24.50 [9.00–36.00]                        | 24.00 [8.50–26.00]                      | $P = 0.50$         | $P = 0.74$                                  |
| Hepcidin (ng/mL)                          | 15.61 [7.20–41.33]                     | 7.91 [2.83–18.52]                    | $P < 0.001$        | 10.18 [5.15–31.46]                        | 9.05 [1.68–46.37]                       | $P = 0.58$         | $P = 0.32$                                  |
| sTfR (μg/mL)                              | 7.77 [6.00–10.13]                      | 7.12 [5.88–8.60]                     | $P < 0.05$         | 10.81 [5.93–13.58]                        | 8.98 [5.94–13.22]                       | $P = 0.95$         | $P = 0.24$                                  |
| sTfR/log Ferritin Index                   | 4.68 [3.56–5.99]                       | 4.19 [3.45–5.86]                     | $P = 0.96$         | 8.18 [2.76–11.56]                         | 7.75 [2.84–12.28]                       | $P = 0.68$         | $P = 0.40$                                  |
| <b>Inflammation-associated parameters</b> |  |                                      |                    |   |   |                    |   |
| CRP (mg/L)                                | 4.55 [1.58–13.50]                      | 1.60 [0.50–4.60]                     | $P < 0.001$        | 5.00 [2.25–20.00]                         | 1.20 [0.80–12.00]                       | $P < 0.05$         | $P = 0.61$                                  |
| ESR (mm/hour)                             | 16.00 [7.75–35.25]                     | 9.00 [4.00–18.50]                    | $P < 0.001$        | 35.00 [17.00–53.50]                       | 27.00 [12.00–40.50]                     | $P = 0.09$         | $P = 0.07$                                  |
| WBC ( $\times 10^9/L$ )                   | 7.30 [5.70–9.70]                       | 6.30 [4.30–7.80]                     | $P < 0.001$        | 9.20 [7.05–10.55]                         | 7.00 [5.90–7.95]                        | $P < 0.05$         | $P = 0.24$                                  |
| Neutrophils ( $\times 10^9/L$ )           | 5.09 [3.80–6.94]                       | 3.49 [2.40–4.88]                     | $P < 0.001$        | 6.65 [5.08–8.62]                          | 4.46 [4.02–5.57]                        | $P < 0.05$         | $P = 0.12$                                  |
| Platelets ( $\times 10^9/L$ )             | 306.50 [259.50–376.25]                 | 275.00 [245.00–333.00]               | $P < 0.001$        | 292.00 [231.50–401.50]                    | 247.00 [217.00–385.00]                  | $P = 0.21$         | $P = 0.66$                                  |
| cFGF-23 (pmol/L)                          | 0.87 [0.52–1.53]                       | 0.88 [0.42–1.83]                     | $P = 0.33$         | 1.48 [0.89–4.18]                          | 1.34 [1.11–1.79]                        | $P = 0.68$         | $P = 0.06$                                  |
| iFGF-23 (pg/mL)                           | 9.81 [5.86–13.55]                      | 7.56 [5.07–10.13]                    | $P = 0.59$         | 10.96 [6.98–18.83]                        | 11.84 [5.00–14.14]                      | $P = 0.52$         | $P = 0.61$                                  |
| c/iFGF-23 ratio                           | 0.10 [0.05–0.17]                       | 0.11 [0.06–0.23]                     | $P = 0.38$         | 0.13 [0.06–0.29]                          | 0.13 [0.09–0.27]                        | $P = 0.86$         | $P = 0.38$                                  |
| IL-1β (pg/mL)                             | 1.23 [1.05–1.31]                       | 1.08 [0.77–1.29]                     | $P = 0.06$         | NA  | NA                                      | NA                 | NA  |
| IL-6 (pg/mL)                              | 2.38 [1.07–3.72]                       | 1.46 [0.68–1.99]                     | $P < 0.01$         | 2.23 [0.79–4.12]                          | 1.12 [1.01–2.53]                        | $P = 0.89$         | $P = 0.65$                                  |
| IL-10 (pg/mL)                             | 1.20 [0.38–1.58]                       | 1.42 [0.44–1.78]                     | $P < 0.05$         | 0.70 [0.39–1.67]                          | 0.64 [0.33–1.81]                        | $P = 0.59$         | $P = 0.74$                                  |
| IL-22 (pg/mL)                             | 1.16 [0.60–1.97]                       | 0.94 [0.50–1.27]                     | $P = 0.002$        | 1.10 [0.43–1.34]                          | 0.95 [0.56–1.08]                        | $P = 0.68$         | $P = 0.38$                                  |
| IL-23 (pg/mL)                             | 7.54 [6.82–8.54]                       | 7.38 [6.63–8.82]                     | $P = 0.68$         | NA  | NA                                      | NA                 | NA  |
| TNFα (pg/mL)                              | 2.08 [1.33–2.53]                       | 1.51 [0.64–2.00]                     | $P < 0.001$        | 1.54 [1.40–2.29]                          | 0.92 [0.62–3.39]                        | $P = 0.77$         | $P = 0.39$                                  |
| INF-γ (pg/mL)                             | 19.66 [9.66–40.11]                     | 17.20 [6.59–32.03]                   | $P = 0.32$         | 8.39 [4.31–22.23]                         | 8.45 [2.96–16.99]                       | $P = 0.77$         | $P < 0.05$                                  |
| R-SH (uM)                                 | 238.23 [191.64–274.66]                 | 244.63 [206.05–299.12]               | $P = 0.11$         | 216.77 [157.33–279.09]                    | 218.01 [180.01–282.46]                  | $P = 0.59$         | $P = 0.45$                                  |
| FCP (mg/kg) ‡                             | 1170.00 [276.25–2245.00]               | 120.00 [40.00–221.25]                | $P < 0.05$         | 740.00 [625.00–1650.00]                   | NA                                      | NA                 | $P = 0.70$                                  |
| <b>Hypoxia-associated parameters</b>      |  |                                      |                    |   |   |                    |   |
| EPO (pg/mL)                               | 83.87 [50.75–137.68]                   | 64.16 [48.32–114.10]                 | $P < 0.01$         | 99.99 [64.00–206.10]                      | 97.86 [40.38–145.01]                    | $P = 0.44$         | $P = 0.30$                                  |
| MIP-3α (pg/mL)                            | 18.60 [10.55–30.79]                    | 13.98 [8.77–20.84]                   | $P < 0.01$         | 19.36 [12.00–21.62]                       | 17.50 [12.97–21.62]                     | $P = 0.48$         | $P = 0.64$                                  |
| VEGF-A (pg/mL)                            | 120.09 [67.45–220.09]                  | 109.18 [61.80–168.87]                | $P = 0.06$         | 85.92 [60.60–233.52]                      | 55.64 [47.45–237.14]                    | $P = 0.09$         | $P = 0.53$                                  |
| <b>Other parameters</b>                   |  |                                      |                    |   |   |                    |   |
| MCV (fL)                                  | 89.65 [85.28–93.08]                    | 90.30 [86.00–93.40]                  | $P = 0.10$         | 92.20 [88.60–93.60]                       | 89.70 [88.30–93.20]                     | $P = 0.95$         | $P = 0.34$                                  |
| LDH (U/L)                                 | 164.00 [134.00–203.00]                 | 168.00 [143.00–199.25]               | $P = 0.16$         | 168.00 [154.00–240.00]                    | 180.50 [143.75–309.75]                  | $P = 0.67$         | $P = 0.25$                                  |
| Albumin (g/L)                             | 41.50 [40.00–44.00]                    | 42.50 [41.00–44.25]                  | $P < 0.05$         | 43.00 [38.50–43.50]                       | 42.00 [39.50–43.50]                     | $P = 0.34$         | $P = 0.70$                                  |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin,

MIP-3α: Macrophage Inflammatory Protein 3α, VEGF-A: Vascular Endothelial Growth Factor A, R-SH: free thiols, NA: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 22. Changes in biochemical parameters in patients with IBD stratified by (non-)response to induction therapy with vedolizumab.**

|   | Responders VEDO<br>baseline<br>(n = 33) | Responders VEDO<br>week 6<br>(n = 33) | Paired<br>analysis        | Non-responders VEDO<br>baseline<br>(n = 14) | Non-responders VEDO<br>week 6<br>(n = 14) | Paired<br>analysis | Baseline<br>difference<br>between<br>groups |
|---|---|---------------------------------------|---------------------------|---|---|--------------------|---|
| <b>Hemoglobin (mmol/L)</b>                | <b>8.10 [7.65–8.95]</b>                 | <b>8.00 [7.70–9.18]</b>               | <i>P</i> = 0.29           | <b>7.90 [7.28–8.33]</b>                     | <b>8.00 [7.30–8.25]</b>                   | <i>P</i> = 0.36    | <i>P</i> = 0.15                             |
| Hemoglobin females                        | 7.70 [7.50–8.30]                        | 7.80 [7.50–8.00]                      | <i>P</i> = 0.65           | 8.10 [7.28–8.43]                            | 7.85 [7.35–8.28]                          | <i>P</i> = 0.58    | <i>P</i> = 0.61                             |
| Hemoglobin males                          | 8.70 [8.08–9.50]                        | 8.90 [8.00–9.50]                      | <i>P</i> = 0.25           | 7.85 [6.83–8.30]                            | 8.00 [5.80–8.30]                          | <i>P</i> = 0.60    | <i>P</i> < 0.05                             |
| <b>Systemic iron status parameters</b>    |   |                                       |                           |   |   |                    |   |
| Ferritin (μg/L)                           | 46.00 [24.00–82.50]                     | 34.00 [23.00–71.50]                   | <i>P</i> < 0.05           | 31.50 [20.75–135.50]                        | 43.00 [25.00–114.50]                      | <i>P</i> = 0.58    | <i>P</i> = 0.68                             |
| Iron (μmol/L)                             | 13.50 [9.55–19.15]                      | 12.90 [8.80–17.70]                    | <i>P</i> = 0.13           | 8.15 [4.93–11.43]                           | 11.00 [6.35–15.95]                        | <i>P</i> = 0.06    | <i>P</i> < 0.01                             |
| Transferrin (g/L)                         | 2.40 [2.20–2.65]                        | 2.50 [2.40–2.80]                      | <b><i>P</i> &lt; 0.01</b> | 2.40 [2.20–2.63]                            | 2.40 [2.20–3.10]                          | <i>P</i> = 0.18    | <i>P</i> = 0.93                             |
| TIBC (μmol/L)                             | 60.00 [55.00–67.00]                     | 64.00 [60.50–70.50]                   | <b><i>P</i> &lt; 0.01</b> | 61.00 [56.25–66.75]                         | 60.00 [54.50–78.50]                       | <i>P</i> = 0.37    | <i>P</i> = 0.99                             |
| TSAT (%)                                  | 20.00 [15.00–31.50]                     | 19.00 [13.00–28.00]                   | <i>P</i> = 0.06           | 13.50 [8.00–18.50]                          | 23.00 [9.50–27.50]                        | <i>P</i> = 0.08    | <i>P</i> < 0.01                             |
| Hepcidin (ng/mL)                          | 13.01 [3.88–21.55]                      | 11.87 [5.43–26.26]                    | <i>P</i> = 0.56           | 11.02 [2.61–29.53]                          | 12.11 [6.06–24.47]                        | <i>P</i> = 0.25    | <i>P</i> = 0.91                             |
| sTfR (μg/mL)                              | 7.13 [5.32–10.03]                       | 8.59 [6.70–10.63]                     | <b><i>P</i> &lt; 0.01</b> | 7.08 [6.02–9.07]                            | 8.07 [6.16–9.32]                          | <i>P</i> = 0.07    | <i>P</i> = 0.96                             |
| sTfR/log Ferritin Index                   | 4.39 [2.99–6.63]                        | 5.36 [3.57–7.48]                      | <b><i>P</i> &lt; 0.01</b> | 4.76 [3.47–5.10]                            | 4.94 [3.45–6.97]                          | <i>P</i> = 0.06    | <i>P</i> = 0.87                             |
| <b>Inflammation-associated parameters</b> |   |                                       |                           |   |   |                    |   |
| CRP (mg/L)                                | 2.30 [0.90–4.20]                        | 2.20 [1.20–4.65]                      | <i>P</i> = 0.85           | 5.10 [2.63–17.50]                           | 9.60 [3.20–16.00]                         | <i>P</i> = 0.78    | <i>P</i> < 0.05                             |
| ESR (mm/hour)                             | 13.00 [6.00–27.00]                      | 13.50 [7.00–30.75]                    | <i>P</i> = 0.38           | 26.00 [8.00–43.75]                          | 32.00 [13.00–37.00]                       | <i>P</i> = 0.62    | <i>P</i> = 0.26                             |
| WBC (x 10 <sup>9</sup> /L)                | 8.00 [5.70–10.55]                       | 6.70 [5.50–8.10]                      | <i>P</i> < 0.05           | 7.80 [6.15–12.13]                           | 7.30 [6.05–10.35]                         | <i>P</i> = 0.35    | <i>P</i> = 0.50                             |
| Neutrophils (x 10 <sup>9</sup> /L)        | 4.99 [3.67–8.63]                        | 4.31 [3.42–5.21]                      | <b><i>P</i> &lt; 0.01</b> | 5.54 [3.79–8.97]                            | 5.06 [2.98–7.95]                          | <i>P</i> = 0.53    | <i>P</i> = 0.87                             |
| Platelets (x 10 <sup>9</sup> /L)          | 265.50 [220.00–333.75]                  | 271.50 [227.75–300.50]                | <i>P</i> = 0.72           | 355.50 [288.50–374.25]                      | 337.00 [266.00–422.50]                    | <i>P</i> = 0.53    | <i>P</i> < 0.05                             |
| cFGF-23 (pmol/L)                          | 0.76 [0.48–1.19]                        | 1.03 [0.47–1.49]                      | <i>P</i> = 0.46           | 0.84 [0.35–2.14]                            | 1.15 [0.33–1.54]                          | <i>P</i> = 0.86    | <i>P</i> = 0.53                             |
| iFGF-23 (pg/mL)                           | 10.12 [7.70–14.71]                      | 10.14 [8.09–13.73]                    | <i>P</i> = 0.74           | 10.09 [7.97–13.24]                          | 8.92 [7.67–11.00]                         | <i>P</i> = 0.46    | <i>P</i> = 0.85                             |
| c/iFGF-23 ratio                           | 0.06 [0.04–0.11]                        | 0.08 [0.04–0.14]                      | <i>P</i> = 0.97           | 0.07 [0.04–0.19]                            | 0.07 [0.04–0.17]                          | <i>P</i> = 0.65    | <i>P</i> = 0.64                             |
| IL-1β (pg/mL)                             | 0.46 [0.12–1.04]                        | 0.91 [0.26–1.34]                      | <i>P</i> = 0.43           | 1.00 [0.17–1.15]                            | 1.04 [0.44–1.32]                          | <i>P</i> = 0.31    | <i>P</i> = 0.54                             |
| IL-6 (pg/mL)                              | 1.71 [0.91–3.85]                        | 1.82 [1.21–2.88]                      | <i>P</i> = 0.78           | 3.61 [1.53–6.59]                            | 3.72 [2.21–4.67]                          | <i>P</i> = 0.94    | <i>P</i> = 0.06                             |
| IL-10 (pg/mL)                             | 0.93 [0.59–1.57]                        | 0.83 [0.53–1.63]                      | <i>P</i> = 0.43           | 0.94 [0.55–1.47]                            | 1.20 [0.62–1.55]                          | <i>P</i> = 0.12    | <i>P</i> = 0.84                             |
| IL-22 (pg/mL)                             | 1.15 [0.76–1.73]                        | 0.85 [0.66–1.54]                      | <i>P</i> < 0.05           | 1.69 [0.86–3.12]                            | 1.38 [0.89–2.39]                          | <i>P</i> = 0.15    | <i>P</i> = 0.31                             |
| IL-23 (pg/mL)                             | 0.89 [0.42–7.21]                        | 1.18 [0.29–7.27]                      | <i>P</i> = 0.88           | 6.00 [0.98–8.90]                            | 7.91 [0.19–8.88]                          | <i>P</i> = 0.75    | <i>P</i> = 0.09                             |
| TNFα (pg/mL)                              | 1.95 [1.65–2.61]                        | 2.08 [1.74–3.30]                      | <i>P</i> = 0.14           | 2.97 [2.02–4.34]                            | 3.01 [2.01–4.89]                          | <i>P</i> = 0.97    | <i>P</i> < 0.05                             |
| INF-γ (pg/mL)                             | 15.55 [7.73–26.67]                      | 13.75 [7.51–28.19]                    | <i>P</i> = 0.37           | 19.48 [10.76–68.76]                         | 24.63 [13.68–59.12]                       | <i>P</i> = 0.75    | <i>P</i> = 0.29                             |
| R-SH (uM)                                 | 216.68 [200.78–271.40]                  | 236.64 [196.55–287.02]                | <i>P</i> = 0.14           | 229.99 [185.35–246.72]                      | 212.86 [173.09–220.41]                    | <i>P</i> = 0.06    | <i>P</i> = 0.49                             |
| FCP (mg/kg) ‡                             | 410.00 [235.00–1306.00]                 | 115.00 [41.00–217.00]                 | <b><i>P</i> &lt; 0.01</b> | 880.00 [442.00–2880.00]                     | 1500.00 [482.50–2647.50]                  | <i>P</i> = 0.50    | <i>P</i> = 0.14                             |
| <b>Hypoxia-associated parameters</b>      |   |                                       |                           |   |   |                    |   |
| EPO (pg/mL)                               | 83.98 [49.34–133.25]                    | 74.32 [64.06–128.28]                  | <i>P</i> = 0.94           | 62.72 [48.09–79.14]                         | 87.48 [58.78–100.55]                      | <i>P</i> < 0.01    | <i>P</i> = 0.13                             |
| MIP-3α (pg/mL)                            | 19.23 [10.53–31.96]                     | 22.10 [11.49–36.19]                   | <i>P</i> = 0.89           | 27.23 [20.67–38.09]                         | 17.77 [12.73–150.55]                      | <i>P</i> = 1.00    | <i>P</i> = 0.06                             |
| VEGF-A (pg/mL)                            | 115.60 [74.03–157.80]                   | 120.24 [73.57–217.59]                 | <i>P</i> = 0.71           | 143.06 [91.21–228.91]                       | 119.60 [94.67–212.83]                     | <i>P</i> = 0.46    | <i>P</i> = 0.33                             |
| <b>Other parameters</b>                   |   |                                       |                           |   |   |                    |   |
| MCV (fL)                                  | 91.10 [87.13–95.65]                     | 90.25 [88.18–95.23]                   | <i>P</i> = 0.39           | 89.25 [82.10–92.15]                         | 87.30 [82.75–93.80]                       | <i>P</i> = 0.55    | <i>P</i> = 0.07                             |
| LDH (U/L)                                 | 181.00 [159.00–227.00]                  | 200.50 [166.50–249.25]                | <i>P</i> = 0.25           | 154.00 [138.50–344.00]                      | 157.00 [126.00–261.50]                    | <i>P</i> = 0.21    | <i>P</i> = 0.32                             |
| Albumin (g/L)                             | 41.50 [40.00–43.00]                     | 43.00 [40.00–44.00]                   | <i>P</i> = 0.14           | 39.00 [37.50–42.25]                         | 41.00 [37.50–42.00]                       | <i>P</i> = 0.97    | <i>P</i> < 0.05                             |

Data are presented as means ± standard deviation (SD) or median [interquartile ranges]. MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, TIBC: total iron-binding capacity, TSAT: transferrin saturation, LDH: lactate dehydrogenase, FCP: fecal calprotectin, cFGF-23: c-terminal Fibroblast Growth Factor 23, iFGF-23: intact Fibroblast Growth Factor 23, sTfR: soluble Transferrin Receptor, IL-1β: interleukin 1β, IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNFα: Tumor Necrosis Factor α, INF-γ: Interferon γ, EPO: erythropoietin,

*MIP-3 $\alpha$* : Macrophage Inflammatory Protein 3 $\alpha$ , *VEGF-A*: Vascular Endothelial Growth Factor A, *R-SH*: free thiols, *NA*: denotes a variable with too few data points for statistical testing. ‡: FCP measured before and after the induction therapy. P-values presented in **bold** represent statistical significance after adjustment for multiple testing.

**Supplementary table 23. Predictors for response to induction therapy with either infliximab or vedolizumab in patients with IBD.**

|  | RESPONSE TO INDUCTION IN THE IBD GROUP |               |                              |               |
|--|--|---------------|------------------------------|---------------|
|  | Univariable<br>OR (95% CI)             | P-value       | Multivariable<br>OR (95% CI) | P-value       |
| Gender (reference male)                  | 1.88 [0.73–4.85]                       | 0.20          |                              |               |
| Age                                      | 0.97 [0.94–1.00]                       | 0.08          |                              |               |
| BMI                                      | 1.00 [0.92–1.08]                       | 0.95          |                              |               |
| Disease duration                         | 1.01 [0.97–1.06]                       | 0.66          |                              |               |
| Biologicals naïve                        | 2.66 [1.03–6.91]                       | < <b>0.05</b> | 4.164 [1.433–12.094]         | < <b>0.01</b> |
| Anemia                                   | 0.21 [0.08–0.59]                       | < <b>0.01</b> | 0.147 [0.048–0.446]          | < <b>0.01</b> |
| Iron deficiency                          | 1.68 [0.61–4.67]                       | 0.32          |                              |               |
| Iron deficiency anemia                   | 0.40 [0.16–1.02]                       | 0.05          |                              |               |
| <b>Inflammation</b>                      |  |               |                              |               |
| Log <sub>2</sub> FCP                     | 0.84 [0.60–1.19]                       | 0.33          |                              |               |
| Log <sub>2</sub> ESR                     | 0.72 [0.51–1.02]                       | 0.06          |                              |               |
| Log <sub>2</sub> CRP                     | 0.79 [0.62–1.01]                       | 0.07          |                              |               |
| Log <sub>2</sub> WBC                     | 0.56 [0.24–1.31]                       | 0.18          |                              |               |
| Log <sub>2</sub> Neutrophils             | 0.73 [0.37–1.44]                       | 0.36          |                              |               |
| Log <sub>2</sub> Platelets               | 0.42 [0.12–1.41]                       | 0.16          |                              |               |
| Log <sub>2</sub> Free thiols             | 1.84 [0.56–6.03]                       | 0.31          |                              |               |
| Log <sub>2</sub> IL-1 $\beta$            | 0.99 [0.72–1.37]                       | 0.95          |                              |               |
| Log <sub>2</sub> IL-6                    | 0.95 [0.71–1.27]                       | 0.71          |                              |               |
| Log <sub>2</sub> IL-10                   | 0.92 [0.64–1.31]                       | 0.64          |                              |               |
| Log <sub>2</sub> IL-22                   | 0.88 [0.61–1.26]                       | 0.48          |                              |               |
| Log <sub>2</sub> IL-23                   | 0.89 [0.64–1.24]                       | 0.48          |                              |               |
| Log <sub>2</sub> TNF $\alpha$            | 0.63 [0.36–1.09]                       | 0.10          |                              |               |
| Log <sub>2</sub> INF $\gamma$            | 1.06 [0.82–1.39]                       | 0.65          |                              |               |
| <b>Iron status</b>                       |  |               |                              |               |
| Log <sub>2</sub> Hepcidin                | 1.11 [0.87–1.42]                       | 0.39          |                              |               |
| Log <sub>2</sub> Iron                    | 1.93 [1.08–3.45]                       | < <b>0.05</b> |                              |               |
| Log <sub>2</sub> Ferritin                | 1.07 [0.75–1.51]                       | 0.71          |                              |               |
| Log <sub>2</sub> Transferrin             | 1.42 [0.22–9.23]                       | 0.71          |                              |               |
| Log <sub>2</sub> TIBC                    | 1.19 [0.20–7.07]                       | 0.85          |                              |               |
| Log <sub>2</sub> TSAT                    | 1.84 [1.05–3.24]                       | < <b>0.05</b> |                              |               |
| <b>Hypoxia and erythropoiesis</b>        |  |               |                              |               |
| Log <sub>2</sub> EPO                     | 1.07 [0.68–1.70]                       | 0.76          |                              |               |
| Log <sub>2</sub> VEGF-A                  | 0.99 [0.64–1.52]                       | 0.95          |                              |               |
| Log <sub>2</sub> MIP-3 $\alpha$          | 0.76 [0.55–1.06]                       | 0.11          |                              |               |
| Log <sub>2</sub> sTfR                    | 0.81 [0.35–1.89]                       | 0.63          |                              |               |
| Log <sub>2</sub> sTfR/log Ferritin index | 0.82 [0.44–1.51]                       | 0.52          |                              |               |
| Log <sub>2</sub> cFGF 23                 | 0.72 [0.48–1.06]                       | 0.10          |                              |               |
| Log <sub>2</sub> iFGF 23                 | 0.96 [0.62–1.48]                       | 0.85          |                              |               |
| Log <sub>2</sub> c/iFGF ratio            | 0.84 [0.63–1.11]                       | 0.22          |                              |               |
| <b>Other parameters</b>                  |  |               |                              |               |
| MCV                                      | 1.05 [0.97–1.14]                       | 0.22          |                              |               |
| Log <sub>2</sub> LDH                     | 0.64 [0.24–1.74]                       | 0.38          |                              |               |
| Albumin                                  | 1.14 [0.99–1.31]                       | 0.07          |                              |               |
| Hemoglobin                               | 1.77 [1.01–3.10]                       | < <b>0.05</b> |                              |               |

For log<sub>2</sub> transformed variables Odds Ratio (OR) represents the increase or decrease in the odds of responding to induction therapy if the value of the variable doubles. FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.

**Supplementary table 24. Predictors for response to induction therapy with either infliximab or vedolizumab in patients with Crohn's Disease.**

|   | RESPONSE TO INDUCTION IN THE CD GROUP |               |                              |               |
|---|---------------------------------------|---------------|------------------------------|---------------|
|   | Univariable<br>OR (95% CI)            | P-value       | Multivariable<br>OR (95% CI) | P-value       |
| <b>Gender</b> (reference male)                  | 1.60 [0.41–6.23]                      | 0.50          |                              |               |
| <b>Age</b>                                      | 0.96 [0.91–1.00]                      | 0.07          |                              |               |
| <b>BMI</b>                                      | 1.03 [0.91–1.17]                      | 0.61          |                              |               |
| <b>Disease duration</b>                         | 1.00 [0.95–1.05]                      | 0.99          |                              |               |
| <b>Biologicals naïve</b>                        | 7.56 [1.45–39.40]                     | < <b>0.05</b> | 15.86 [2.43–103.57]          | < <b>0.01</b> |
| <b>Anemia</b>                                   | 0.08 [0.01–0.66]                      | < <b>0.05</b> | 0.04 [0.004–0.38]            | < <b>0.01</b> |
| <b>Iron deficiency</b>                          | 1.80 [0.39–8.22]                      | 0.45          |                              |               |
| <b>Iron-deficiency anemia</b>                   | 0.35 [0.09–1.41]                      | 0.14          |                              |               |
| <b>Inflammation</b>                             |                                       |               |                              |               |
| <b>Log<sub>2</sub> FCP</b>                      | 0.94 [0.60–1.47]                      | 0.78          |                              |               |
| <b>Log<sub>2</sub> ESR</b>                      | 0.50 [0.27–0.91]                      | < <b>0.05</b> |                              |               |
| <b>Log<sub>2</sub> CRP</b>                      | 0.65 [0.43–0.98]                      | < <b>0.05</b> |                              |               |
| <b>Log<sub>2</sub> WBC</b>                      | 0.24 [0.05–1.04]                      | 0.06          |                              |               |
| <b>Log<sub>2</sub> Neutrophils</b>              | 0.36 [0.12–1.14]                      | 0.08          |                              |               |
| <b>Log<sub>2</sub> Platelets</b>                | 0.20 [0.03–1.22]                      | 0.08          |                              |               |
| <b>Log<sub>2</sub> Free thiols</b>              | 0.80 [0.14–4.46]                      | 0.80          |                              |               |
| <b>Log<sub>2</sub> IL-1<math>\beta</math></b>   | 1.02 [0.59–1.79]                      | 0.94          |                              |               |
| <b>Log<sub>2</sub> IL-6</b>                     | 1.10 [0.72–1.69]                      | 0.66          |                              |               |
| <b>Log<sub>2</sub> IL-10</b>                    | 1.15 [0.64–2.08]                      | 0.63          |                              |               |
| <b>Log<sub>2</sub> IL-22</b>                    | 0.62 [0.37–1.04]                      | 0.07          |                              |               |
| <b>Log<sub>2</sub> IL-23</b>                    | 1.10 [0.73–1.46]                      | 0.65          |                              |               |
| <b>Log<sub>2</sub> TNF<math>\alpha</math></b>   | 1.01 [0.37–2.78]                      | 0.98          |                              |               |
| <b>Log<sub>2</sub> INF-<math>\gamma</math></b>  | 0.91 [0.63–1.31]                      | 0.61          |                              |               |
| <b>Iron status</b>                              |                                       |               |                              |               |
| <b>Log<sub>2</sub> Hcpidin</b>                  | 1.08 [0.75–1.55]                      | 0.68          |                              |               |
| <b>Log<sub>2</sub> Iron</b>                     | 2.93 [1.23–6.97]                      | < <b>0.05</b> |                              |               |
| <b>Log<sub>2</sub> Ferritin</b>                 | 1.03 [0.63–1.69]                      | 0.90          |                              |               |
| <b>Log<sub>2</sub> Transferrin</b>              | 0.64 [0.05–7.96]                      | 0.73          |                              |               |
| <b>Log<sub>2</sub> TIBC</b>                     | 0.61 [0.05–7.18]                      | 0.70          |                              |               |
| <b>Log<sub>2</sub> TSAT</b>                     | 3.15 [1.29–7.70]                      | < <b>0.05</b> |                              |               |
| <b>Hypoxia and erythropoiesis</b>               |                                       |               |                              |               |
| <b>Log<sub>2</sub> EPO</b>                      | 0.86 [0.41–1.80]                      | 0.68          |                              |               |
| <b>Log<sub>2</sub> VEGF-A</b>                   | 1.19 [0.64–2.21]                      | 0.58          |                              |               |
| <b>Log<sub>2</sub> MIP-3<math>\alpha</math></b> | 0.97 [0.60–1.57]                      | 0.91          |                              |               |
| <b>Log<sub>2</sub> sTfR</b>                     | 0.52 [0.12–2.30]                      | 0.39          |                              |               |
| <b>Log<sub>2</sub> sTfR/log Ferritin index</b>  | 0.71 [0.28–1.83]                      | 0.48          |                              |               |
| <b>Log<sub>2</sub> cFGF 23</b>                  | 0.64 [0.35–1.18]                      | 0.16          |                              |               |
| <b>Log<sub>2</sub> iFGF 23</b>                  | 0.95 [0.49–1.88]                      | 0.89          |                              |               |
| <b>Log<sub>2</sub> c/iFGF ratio</b>             | 0.82 [0.55–1.21]                      | 0.32          |                              |               |
| <b>Other parameters</b>                         |                                       |               |                              |               |
| <b>MCV</b>                                      | 1.00 [0.87–0.99]                      | 0.99          |                              |               |
| <b>Log<sub>2</sub> LDH</b>                      | 0.78 [0.19–3.27]                      | 0.73          |                              |               |
| <b>Albumin</b>                                  | 1.13 [0.93–1.37]                      | 0.22          |                              |               |
| <b>Hemoglobin</b>                               | 3.00 [1.14–7.89]                      | < <b>0.05</b> |                              |               |

For log<sub>2</sub> transformed variables Odds Ratio (OR) represents the increase or decrease in the odds of responding to induction therapy if the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.



**Supplementary table 25. Predictors for response to induction therapy with either infliximab or vedolizumab in patients with ulcerative colitis.**

|   | RESPONSE TO INDUCTION IN THE UC GROUP |               |                              |         |
|---|---------------------------------------|---------------|------------------------------|---------|
|   | Univariable<br>OR (95% CI)            | P-value       | Multivariable<br>OR (95% CI) | P-value |
| <b>Gender (reference male)</b>                  | 1.80 [0.42–7.61]                      | 0.43          |                              |         |
| <b>Age</b>                                      | 0.99 [0.95–1.04]                      | 0.73          |                              |         |
| <b>BMI</b>                                      | 0.97 [0.87–1.09]                      | 0.61          |                              |         |
| <b>Disease duration</b>                         | 1.03 [0.95–1.11]                      | 0.54          |                              |         |
| <b>Biologicals naïve</b>                        | 1.17 [0.33–4.09]                      | 0.81          |                              |         |
| <b>Anemia</b>                                   | 0.30 [0.08–1.10]                      | 0.07          |                              |         |
| <b>Iron deficiency</b>                          | 1.53 [0.38–6.16]                      | 0.55          |                              |         |
| <b>Iron-deficiency anemia</b>                   | 0.39 [0.11–1.43]                      | 0.16          |                              |         |
| <b>Inflammation</b>                             |                                       |               |                              |         |
| <b>Log<sub>2</sub> FCP</b>                      | 0.74 [0.43–1.28]                      | 0.28          |                              |         |
| <b>Log<sub>2</sub> ESR</b>                      | 0.88 [0.56–1.38]                      | 0.57          |                              |         |
| <b>Log<sub>2</sub> CRP</b>                      | 0.85 [0.59–1.21]                      | 0.36          |                              |         |
| <b>Log<sub>2</sub> WBC</b>                      | 0.93 [0.30–2.88]                      | 0.90          |                              |         |
| <b>Log<sub>2</sub> Neutrophils</b>              | 1.16 [0.46–2.90]                      | 0.76          |                              |         |
| <b>Log<sub>2</sub> Platelets</b>                | 0.57 [0.07–4.57]                      | 0.60          |                              |         |
| <b>Log<sub>2</sub> Free thiols</b>              | 4.06 [0.59–27.73]                     | 0.15          |                              |         |
| <b>Log<sub>2</sub> IL-1<math>\beta</math></b>   | 0.86 [0.55–1.34]                      | 0.50          |                              |         |
| <b>Log<sub>2</sub> IL-6</b>                     | 0.83 [0.56–1.23]                      | 0.36          |                              |         |
| <b>Log<sub>2</sub> IL-10</b>                    | 0.85 [0.55–1.33]                      | 0.49          |                              |         |
| <b>Log<sub>2</sub> IL-22</b>                    | 1.39 [0.78–2.50]                      | 0.27          |                              |         |
| <b>Log<sub>2</sub> IL-23</b>                    | 0.69 [0.43–1.11]                      | 0.12          |                              |         |
| <b>Log<sub>2</sub> TNF<math>\alpha</math></b>   | 0.51 [0.25–1.04]                      | 0.07          |                              |         |
| <b>Log<sub>2</sub> INF-<math>\gamma</math></b>  | 1.35 [0.83–2.20]                      | 0.22          |                              |         |
| <b>Iron status</b>                              |                                       |               |                              |         |
| <b>Log<sub>2</sub> Hepcidin</b>                 | 1.09 [0.78–1.54]                      | 0.62          |                              |         |
| <b>Log<sub>2</sub> Iron</b>                     | 1.58 [0.63–3.97]                      | 0.33          |                              |         |
| <b>Log<sub>2</sub> Ferritin</b>                 | 1.13 [0.68–1.87]                      | 0.65          |                              |         |
| <b>Log<sub>2</sub> Transferrin</b>              | 3.53 [0.17–73.55]                     | 0.42          |                              |         |
| <b>Log<sub>2</sub> TIBC</b>                     | 2.26 [0.14–36.11]                     | 0.56          |                              |         |
| <b>Log<sub>2</sub> TSAT</b>                     | 1.32 [0.56–3.11]                      | 0.53          |                              |         |
| <b>Hypoxia and erythropoiesis</b>               |                                       |               |                              |         |
| <b>Log<sub>2</sub> EPO</b>                      | 1.35 [0.69–2.66]                      | 0.38          |                              |         |
| <b>Log<sub>2</sub> VEGF-A</b>                   | 0.80 [0.42–1.51]                      | 0.48          |                              |         |
| <b>Log<sub>2</sub> MIP-3<math>\alpha</math></b> | 0.54 [0.30–0.97]                      | < <b>0.05</b> |                              |         |
| <b>Log<sub>2</sub> sTfR</b>                     | 1.11 [0.38–3.19]                      | 0.85          |                              |         |
| <b>Log<sub>2</sub> sTfR/log Ferritin index</b>  | 0.93 [0.41–2.11]                      | 0.87          |                              |         |
| <b>Log<sub>2</sub> cFGF 23</b>                  | 0.78 [0.46–1.30]                      | 0.34          |                              |         |
| <b>Log<sub>2</sub> iFGF 23</b>                  | 1.00 [0.57–1.75]                      | 0.99          |                              |         |
| <b>Log<sub>2</sub> c/iFGF ratio</b>             | 0.84 [0.56–1.25]                      | 0.39          |                              |         |
| <b>Other parameters</b>                         |                                       |               |                              |         |
| <b>MCV</b>                                      | 1.13 [0.99–1.26]                      | 0.09          |                              |         |
| <b>Log<sub>2</sub> LDH</b>                      | 0.61 [0.14–2.71]                      | 0.51          |                              |         |
| <b>Albumin</b>                                  | 1.16 [0.94–1.43]                      | 0.17          |                              |         |
| <b>Hemoglobin</b>                               | 1.33 [0.65–2.72]                      | 0.44          |                              |         |

For log<sub>2</sub> transformed variables Odds Ratio (OR) represents the increase or decrease in the odds of responding to induction therapy if the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.

**Supplementary table 26. Predictors for response to induction therapy with infliximab in patients with IBD.**

|  | RESPONSE TO INDUCTION IN THE INFLIXIMAB GROUP |         |                              |         |
|--|---|---------|------------------------------|---------|
|  | Univariable<br>OR (95% CI)                    | P-value | Multivariable<br>OR (95% CI) | P-value |
| Gender (reference male)                  | 3.88 [0.74–20.23]                             | 0.11    | 0.92 [0.87–0.98]             | < 0.01  |
| Age                                      | 0.93 [0.88–0.98]                              | < 0.01  |                              |         |
| BMI                                      | 0.97 [0.87–1.09]                              | 0.62    |                              |         |
| Disease duration                         | 1.01 [0.95–1.07]                              | 0.85    |                              |         |
| Biologicals naïve                        | 1.96 [0.43–8.99]                              | 0.39    |                              |         |
| Anemia                                   | 0.11 [0.01–0.93]                              | < 0.05  |                              |         |
| Iron deficiency                          | 1.61 [0.36–7.28]                              | 0.54    |                              |         |
| Iron-deficiency anemia                   | 0.48 [0.12–1.96]                              | 0.30    | 0.07 [0.01–0.68]             | < 0.05  |
| Inflammation                             |   |         |                              |         |
| Log <sub>2</sub> FCP                     | 1.02 [0.59–1.78]                              | 0.94    |                              |         |
| Log <sub>2</sub> ESR                     | 0.59 [0.33–1.06]                              | 0.08    |                              |         |
| Log <sub>2</sub> CRP                     | 0.89 [0.61–1.30]                              | 0.53    |                              |         |
| Log <sub>2</sub> WBC                     | 0.49 [0.11–2.12]                              | 0.34    |                              |         |
| Log <sub>2</sub> Neutrophils             | 0.45 [0.14–1.47]                              | 0.18    |                              |         |
| Log <sub>2</sub> Platelets               | 1.13 [0.19–6.68]                              | 0.89    |                              |         |
| Log <sub>2</sub> Free thiols             | 1.75 [0.33–9.31]                              | 0.51    |                              |         |
| Log <sub>2</sub> IL-1β                   | 0.65 [0.21–2.07]                              | 0.47    |                              |         |
| Log <sub>2</sub> IL-6                    | 1.05 [0.68–1.61]                              | 0.82    |                              |         |
| Log <sub>2</sub> IL-10                   | 1.12 [0.64–1.94]                              | 0.70    |                              |         |
| Log <sub>2</sub> IL-22                   | 1.21 [0.73–2.01]                              | 0.45    |                              |         |
| Log <sub>2</sub> IL-23                   | 0.89 [0.28–2.82]                              | 0.84    |                              |         |
| Log <sub>2</sub> TNFα                    | 1.27 [0.53–3.06]                              | 0.59    |                              |         |
| Log <sub>2</sub> INF-γ                   | 1.44 [0.96–2.18]                              | 0.08    |                              |         |
| Iron status                              |   |         |                              |         |
| Log <sub>2</sub> Hcpidin                 | 1.16 [0.81–1.66]                              | 0.42    |                              |         |
| Log <sub>2</sub> Iron                    | 1.00 [0.44–2.27]                              | 1.00    |                              |         |
| Log <sub>2</sub> Ferritin                | 1.10 [0.66–1.85]                              | 0.71    |                              |         |
| Log <sub>2</sub> Transferrin             | 1.28 [0.08–21.69]                             | 0.87    |                              |         |
| Log <sub>2</sub> TIBC                    | 1.20 [0.09–16.44]                             | 0.89    |                              |         |
| Log <sub>2</sub> TSAT                    | 0.99 [0.44–2.26]                              | 0.99    |                              |         |
| Hypoxia and erythropoiesis               |   |         |                              |         |
| Log <sub>2</sub> EPO                     | 0.58 [0.27–1.27]                              | 0.17    |                              |         |
| Log <sub>2</sub> VEGF-A                  | 1.19 [0.63–2.27]                              | 0.59    |                              |         |
| Log <sub>2</sub> MIP-3α                  | 1.05 [0.64–1.73]                              | 0.84    |                              |         |
| Log <sub>2</sub> sTfR                    | 0.41 [0.11–1.49]                              | 0.17    |                              |         |
| Log <sub>2</sub> sTfR/log Ferritin index | 0.58 [0.24–1.39]                              | 0.22    |                              |         |
| Log <sub>2</sub> cFGF 23                 | 0.51 [0.27–0.96]                              | < 0.05  |                              |         |
| Log <sub>2</sub> iFGF 23                 | 0.94 [0.51–1.71]                              | 0.83    |                              |         |
| Log <sub>2</sub> c/iFGF ratio            | 0.74 [0.50–1.10]                              | 0.13    |                              |         |
| Other parameters                         |   |         |                              |         |
| MCV                                      | 0.96 [0.85–1.09]                              | 0.52    |                              |         |
| Log <sub>2</sub> LDH                     | 0.50 [0.11–2.21]                              | 0.36    |                              |         |
| Albumin                                  | 1.05 [0.86–1.27]                              | 0.65    |                              |         |
| Hemoglobin                               | 2.16 [0.86–5.39]                              | 0.10    |                              |         |

For log<sub>2</sub> transformed variables Odds Ratio (OR) represents the increase or decrease in the odds of responding to induction therapy if the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.

**Supplementary table 27. Predictors for response to induction therapy with vedolizumab in patients with IBD.**

|  | RESPONSE TO INDUCTION IN THE VEDOLIZUMAB GROUP |               |                              |               |
|--|--|---------------|------------------------------|---------------|
|  | Univariable<br>OR (95% CI)                     | P-value       | Multivariable<br>OR (95% CI) | P-value       |
| Gender (reference male)                  | 1.11 [0.32–3.92]                               | 0.87          |                              |               |
| Age                                      | 1.02 [0.97–1.06]                               | 0.53          |                              |               |
| BMI                                      | 1.03 [0.91–1.16]                               | 0.68          |                              |               |
| Disease duration                         | 1.02 [0.94–1.10]                               | 0.70          |                              |               |
| Biologicals naïve                        | 1.62 [0.29–8.97]                               | 0.58          |                              |               |
| Anemia                                   | 0.15 [0.04–0.59]                               | < <b>0.01</b> |                              |               |
| Iron deficiency                          | 2.24 [0.50–10.04]                              | 0.29          |                              |               |
| Iron-deficiency anemia                   | 0.22 [0.06–0.88]                               | < <b>0.05</b> |                              |               |
| <b>Inflammation</b>                      |  |               |                              |               |
| Log <sub>2</sub> FCP                     | 0.74[0.46–1.18]                                | 0.21          |                              |               |
| Log <sub>2</sub> ESR                     | 0.77 [0.49–1.23]                               | 0.27          |                              |               |
| Log <sub>2</sub> CRP                     | 0.63 [0.43–0.93]                               | < <b>0.05</b> |                              |               |
| Log <sub>2</sub> WBC                     | 0.68 [0.24–1.93]                               | 0.46          |                              |               |
| Log <sub>2</sub> Neutrophils             | 1.04 [0.44–2.48]                               | 0.93          |                              |               |
| Log <sub>2</sub> Platelets               | 0.08 [0.01–0.66]                               | < <b>0.05</b> |                              |               |
| Log <sub>2</sub> Free thiols             | 1.78 [0.28–11.39]                              | 0.54          |                              |               |
| Log <sub>2</sub> IL-1 $\beta$            | 0.89 [0.57–1.39]                               | 0.62          |                              |               |
| Log <sub>2</sub> IL-6                    | 0.87 [0.56–1.33]                               | 0.51          |                              |               |
| Log <sub>2</sub> IL-10                   | 0.85 [0.52–1.39]                               | 0.52          |                              |               |
| Log <sub>2</sub> IL-22                   | 0.62 [0.33–1.16]                               | 0.13          |                              |               |
| Log <sub>2</sub> IL-23                   | 0.72 [0.49–1.08]                               | 0.11          |                              |               |
| Log <sub>2</sub> TNF $\alpha$            | 0.46 [0.21–1.02]                               | 0.06          |                              |               |
| Log <sub>2</sub> INF- $\gamma$           | 0.87 [0.61–1.24]                               | 0.43          |                              |               |
| <b>Iron status</b>                       |  |               |                              |               |
| Log <sub>2</sub> Hepcidin                | 1.03 [0.73–1.45]                               | 0.86          |                              |               |
| Log <sub>2</sub> Iron                    | 5.59 [1.72–18.18]                              | < <b>0.01</b> | 6.41 [1.49–27.71]            | < <b>0.05</b> |
| Log <sub>2</sub> Ferritin                | 1.03 [0.63–1.70]                               | 0.90          |                              |               |
| Log <sub>2</sub> Transferrin             | 1.33 [0.09–19.31]                              | 0.83          |                              |               |
| Log <sub>2</sub> TIBC                    | 1.12 [0.08–15.19]                              | 0.93          |                              |               |
| Log <sub>2</sub> TSAT                    | 4.81 [1.56–14.81]                              | < <b>0.01</b> |                              |               |
| <b>Hypoxia and erythropoiesis</b>        |  |               |                              |               |
| Log <sub>2</sub> EPO                     | 1.68 [0.76–3.68]                               | 0.20          |                              |               |
| Log <sub>2</sub> VEGF-A                  | 0.80 [0.41–1.56]                               | 0.52          |                              |               |
| Log <sub>2</sub> MIP-3 $\alpha$          | 0.52 [0.28–0.98]                               | < <b>0.05</b> | 0.41 [0.17–0.97]             | < <b>0.05</b> |
| Log <sub>2</sub> sTfR                    | 1.11 [0.34–3.58]                               | 0.86          |                              |               |
| Log <sub>2</sub> sTfR/log Ferritin index | 0.98 [0.40–2.94]                               | 0.96          |                              |               |
| Log <sub>2</sub> cFGF 23                 | 0.82 [0.46–1.46]                               | 0.49          |                              |               |
| Log <sub>2</sub> iFGF 23                 | 1.26 [0.56–2.84]                               | 0.57          |                              |               |
| Log <sub>2</sub> c/iFGF ratio            | 0.81 [0.51–1.29]                               | 0.37          |                              |               |
| <b>Other parameters</b>                  |  |               |                              |               |
| MCV                                      | 1.15 [1.01–1.31]                               | < <b>0.05</b> |                              |               |
| Log <sub>2</sub> LDH                     | 1.02 [0.25–4.18]                               | 0.98          |                              |               |
| Albumin                                  | 1.28 [1.00–1.63]                               | < <b>0.05</b> |                              |               |
| Hemoglobin                               | 1.79 [0.85–3.77]                               | 0.13          |                              |               |

For log<sub>2</sub> transformed variables Odds Ratio (OR) represents the increase or decrease in the odds of responding to induction therapy if the variable doubles. 95% CI: 95% confidence interval, FCP: fecal calprotectin, MCV: Mean Corpuscular Volume, ESR: Erythrocyte Sedimentation Rate, CRP: C-reactive protein, WBC: white blood cell count, LDH: lactate dehydrogenase, IL-1 $\beta$ : Interleukin 1 $\beta$ , IL-6: Interleukin 6, IL-10: Interleukin 10, IL-22: Interleukin 22, IL-23: Interleukin 23, TNF $\alpha$ : Tumor Necrosis Factor  $\alpha$ , INF- $\gamma$ : Interferon  $\gamma$ , TIBC: total iron-binding capacity, TSAT: transferrin saturation, EPO: erythropoietin, VEGF-A: Vascular Endothelial Growth Factor A, MIP-3 $\alpha$ : Macrophage Inflammatory Protein 3 $\alpha$ , sTfR: soluble Transferrin Receptor, cFGF 23: c-terminal Fibroblast Growth Factor 23, iFGF 23: intact Fibroblast Growth Factor 23.