**Supplementary Table 2. Changes in metabolic parameters**

| Variable                      | GLIM (n=35) | ALO (n=31) | ALO-PIO (n=33) | P value |
|-------------------------------|-------------|------------|---------------|---------|
| **Weight, kg**                |             |            |               |         |
| Baseline                      | 71.70±13.20 | 69.58±12.06| 69.94±13.10   |         |
| Adjusted mean change from baseline at week 24 | 0.87±0.50 | -0.13±0.49 | 0.94±0.51     | 0.244   |
| **BMI, kg/m²**                |             |            |               |         |
| Baseline                      | 26.03±3.17  | 25.85±3.94 | 26.45±3.51    |         |
| Adjusted mean change from baseline at week 24 | 0.30±0.18 | -0.02±0.18 | 0.32±0.19     | 0.333   |
| **Systolic blood pressure, mm Hg** |         |            |               |         |
| Baseline                      | 126.43±16.62| 128.97±14.03| 126.82±14.63 |         |
| Adjusted mean change from baseline at week 24 | 1.71±1.93  | -4.44±1.93 | -1.28±2.00   | 0.086   |
| **Diastolic blood pressure, mm Hg** |         |            |               |         |
| Baseline                      | 74.20±9.58  | 77.94±11.40| 78.39±8.56    |         |
| Adjusted mean change from baseline at week 24 | 1.36±1.32  | -1.81±1.31 | -1.41±1.36   | 0.191   |
| **Fasting insulin, mIU/L**    |             |            |               |         |
| Baseline                      | 12.53±7.44  | 12.37±10.16| 11.32±9.35    |         |
| Adjusted mean change from baseline at week 24 | 3.31±1.91  | 1.02±1.89  | -2.56±1.98   | 0.109   |
| **HOMA-IR**                   |             |            |               |         |
| Baseline                      | 5.44±4.13   | 5.11±3.73  | 4.46±3.38     |         |
| Adjusted mean change from baseline at week 24 | 1.31±0.92  | 0.19±0.91  | -1.55±0.96   | 0.107   |
| **HOMA-β**                    |             |            |               |         |
| Baseline                      | 45.78±31.64 | 47.16±48.87| 45.19±44.95   |         |
| Adjusted mean change from baseline at week 24 | 14.42±6.75 | 7.23±6.73  | -0.93±7.00   | 0.296   |
| **AST, U/L**                  |             |            |               |         |
| Baseline                      | 25.89±10.56 | 25.74±8.77 | 25.91±12.31   |         |
| Adjusted mean change from baseline at week 24 | 0.11±1.18  | -0.58±1.18 | -2.97±1.22   | 0.174   |
| **ALT, U/L**                  |             |            |               |         |
| Baseline                      | 32.17±18.92 | 28.29±12.78| 31.70±18.28   |         |
| Adjusted mean change from baseline at week 24 | 2.52±2.73  | -4.31±2.74 | -8.70±2.84   | 0.019   |
| **Gamma-GT, U/L**             |             |            |               |         |
| Baseline                      | 28.56±15.34 | 44.93±68.35| 32.22±18.92   |         |
| Adjusted mean change from baseline at week 24 | 0.74±2.78  | -6.63±2.84 | -8.02±2.82   | 0.065   |
| **Uric acid, mg/dL**          |             |            |               |         |
| Baseline                      | 4.59±0.98   | 4.51±0.99  | 4.73±1.00     |         |
| Adjusted mean change from baseline at week 24 | 0.32±0.15  | 0.37±0.15  | 0.00±0.16    | 0.196   |

Values are presented as mean±standard deviation in baseline, and change at week 24 data are adjusted mean±standard error. P values were applied by analysis of covariance (ANCOVA; adjusted variable: baseline value) with Bonferroni for adjusted mean change at week 24.

GLIM, glimepiride; ALO, alogliptin; ALO-PIO, alogliptin-pioglitazone; BMI, body mass index; HOMA-IR, homeostasis model assessment of insulin resistance; HOMA-β, homeostasis model assessment of β-cell function; AST, aspartate aminotransferase; ALT, alanine aminotransferase; GT, glutamyl transpeptidase.