

Supplement Table 1. Participant baseline characteristics

	Baseline characteristics
Gender	6M / 3F
Ethnicity	8 Caucasians / 1 Asian
Duration of diabetes (y)	8.8±0.9
Age (y)	61.7±3.7
Hb _{A1C} (mmol/mol)	60.2±2.5
Hb _{A1C} (%)	7.7±0.2
Body mass index, BMI (kg/m ²)	28.9±1.0
Systolic BP (mmHg)	136.3±3.9
Diastolic BP (mmHg)	81.7±3.6
Heart Rate (bpm)	73.3±4.9

Supplement Table 2. Participant medication.

	Number of participants
Metformin	9*
Sulphonylurea	5
DPP-4 inhibitor	4 †
Atenolol	1
ACE inhibitor or ARB or calcium channel blocker	4
Statin therapy	6

* One subject on gliclazide and metformin combination.

† All on sulphonylurea

Supplement Table 3. Plasma Acylcarnitines at 480 minutes. Mean $\pm$ SEM.

Metabolites (micromol/L)	Dapagliflozin	Placebo	P- Values
Carnitine C0	41.75 $\pm$ 1.27	43.39 $\pm$ 3.61	0.550
Acetylcarnitine C2	12.48 $\pm$ 0.85	9.60 $\pm$ 0.89	0.028
Proppionylcarnitine C3	0.237 $\pm$ 0.035	0.243 $\pm$ 0.029	0.761
Hydroxypropionyl carnitine C3-DC(C4-OH)	0.085 $\pm$ 0.008	0.060 $\pm$ 0.007	0.001
Butyrlcarnitine C4	0.114 $\pm$ 0.010	0.103 $\pm$ 0.007	0.162
Valerylcarnitine C5	0.122 $\pm$ 0.012	0.179 $\pm$ 0.05	0.301
Glutaryl carnitine C5-DC (C6-OH)	0.032 $\pm$ 0.002	0.029 $\pm$ 0.002	0.054
Hexanoylcarnitine C6 (C4:1-DC)	0.073 $\pm$ 0.006	0.068 $\pm$ 0.004	0.159
Pimeloylcarnitine C7-DC	0.024 $\pm$ 0.002	0.021 $\pm$ 0.001	0.104
Octanoylcarnitine C8	0.084 $\pm$ 0.009	0.072 $\pm$ 0.005	0.104
Nonalcarnitie C9	0.034 $\pm$ 0.003	0.035 $\pm$ 0.003	0.810
Decanoylcarnitine C10	0.299 $\pm$ 0.035	0.237 $\pm$ 0.016	0.088
Dodecanoylcarnitine C12	0.066 $\pm$ 0.006	0.055 $\pm$ 0.003	0.084
Tetradecanoylcarnitine C14:1	0.079 $\pm$ 0.004	0.77 $\pm$ 0.004	0.725
Hydroxytetradeconylcarnitine C14:1-OH	0.015 $\pm$ 0.0005	0.013 $\pm$ 0.000	0.016
Tetradecadienylcarnitine C14:2	0.032 $\pm$ 0.003	0.029 $\pm$ 0.002	0.092
Hydroxytetradecadienylcarnitine C14:2-OH	0.008 $\pm$ 0.0004	0.007 $\pm$ 0.000	0.824
Hexadeconylcarnitine C16	0.113 $\pm$ 0.006	0.109 $\pm$ 0.006	0.473
Hydroxyhexadecanoylcarnitne C16-OH	0.009 $\pm$ 0.0003	0.009 $\pm$ 0.000	0.050
Hexadecenoylcarnitine C16:1	0.032 $\pm$ 0.002	0.030 $\pm$ 0.002	0.107

Hexadecadienylcarnitine C16:2	0.010 ± 0.0005	0.009 ± 0.000	0.276
Octadecanoylcarnitine C18	0.047 ± 0.003	0.042 ± 0.003	0.038
Octadecadienylcarnitine C18:2	0.033 ± 0.003	0.029 ± 0.002	0.041

Figure 1. Study design.

Study design

**Screening
Biochemistry**

**Subject
Randomisation**

