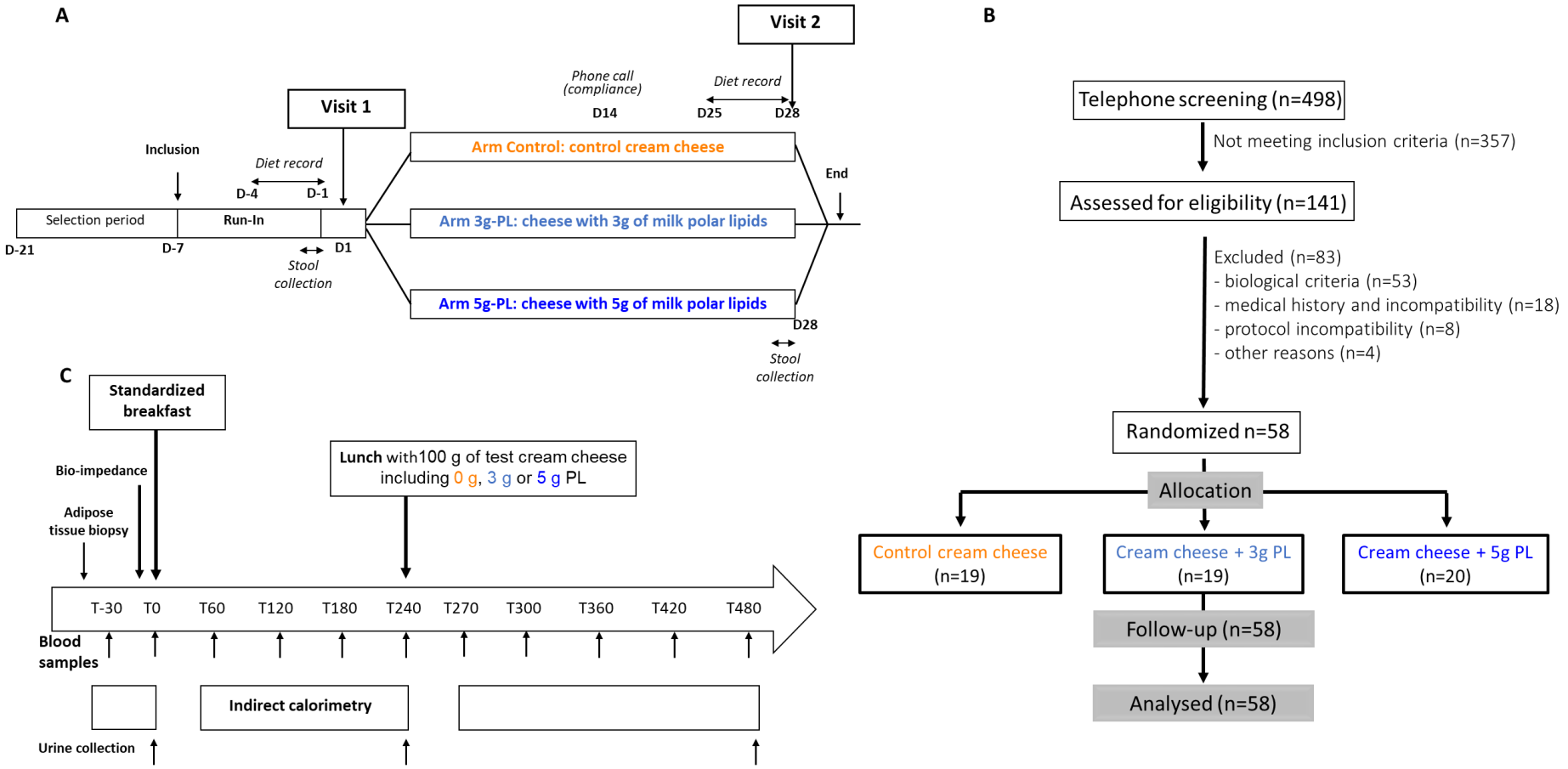
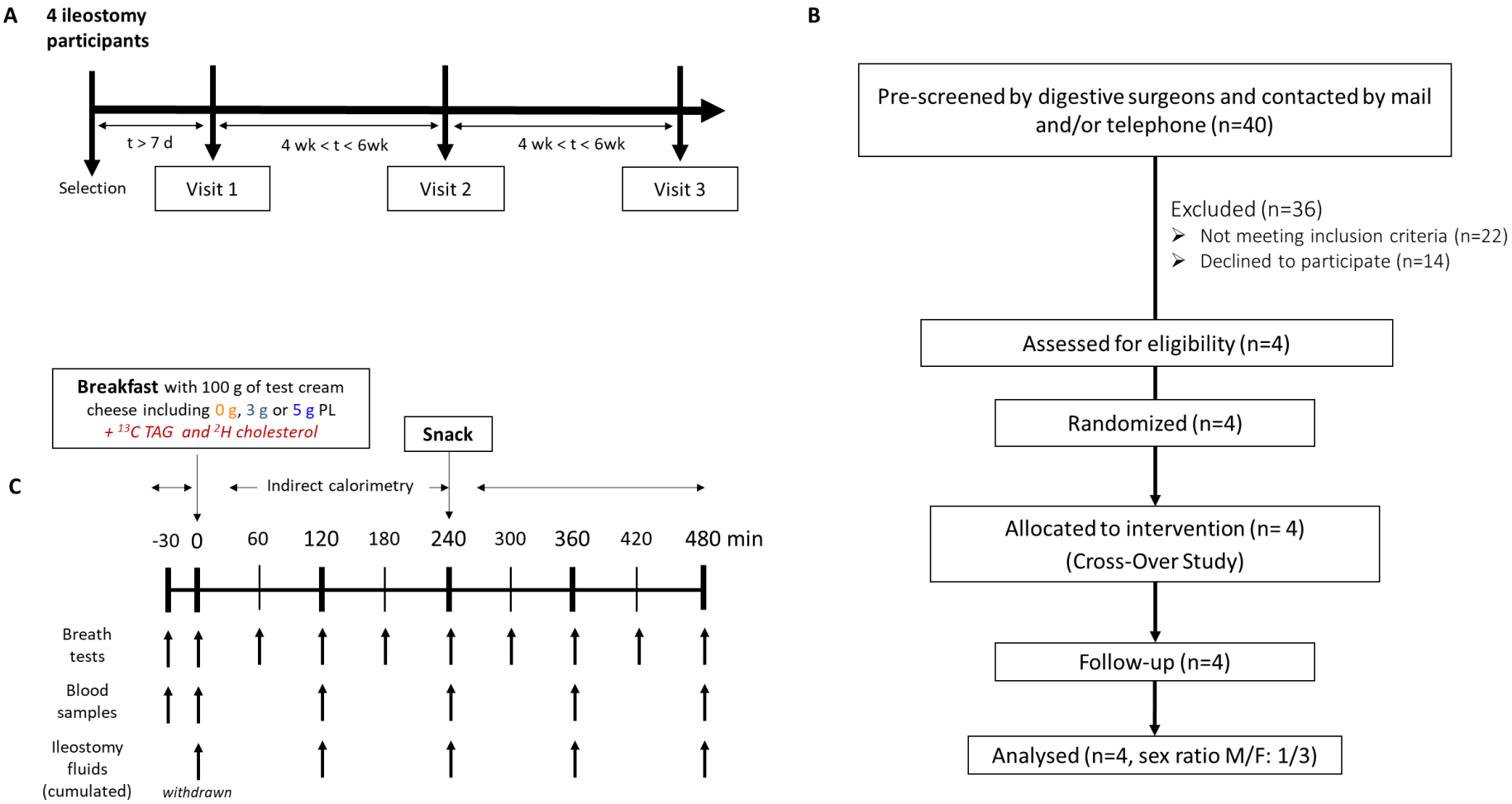
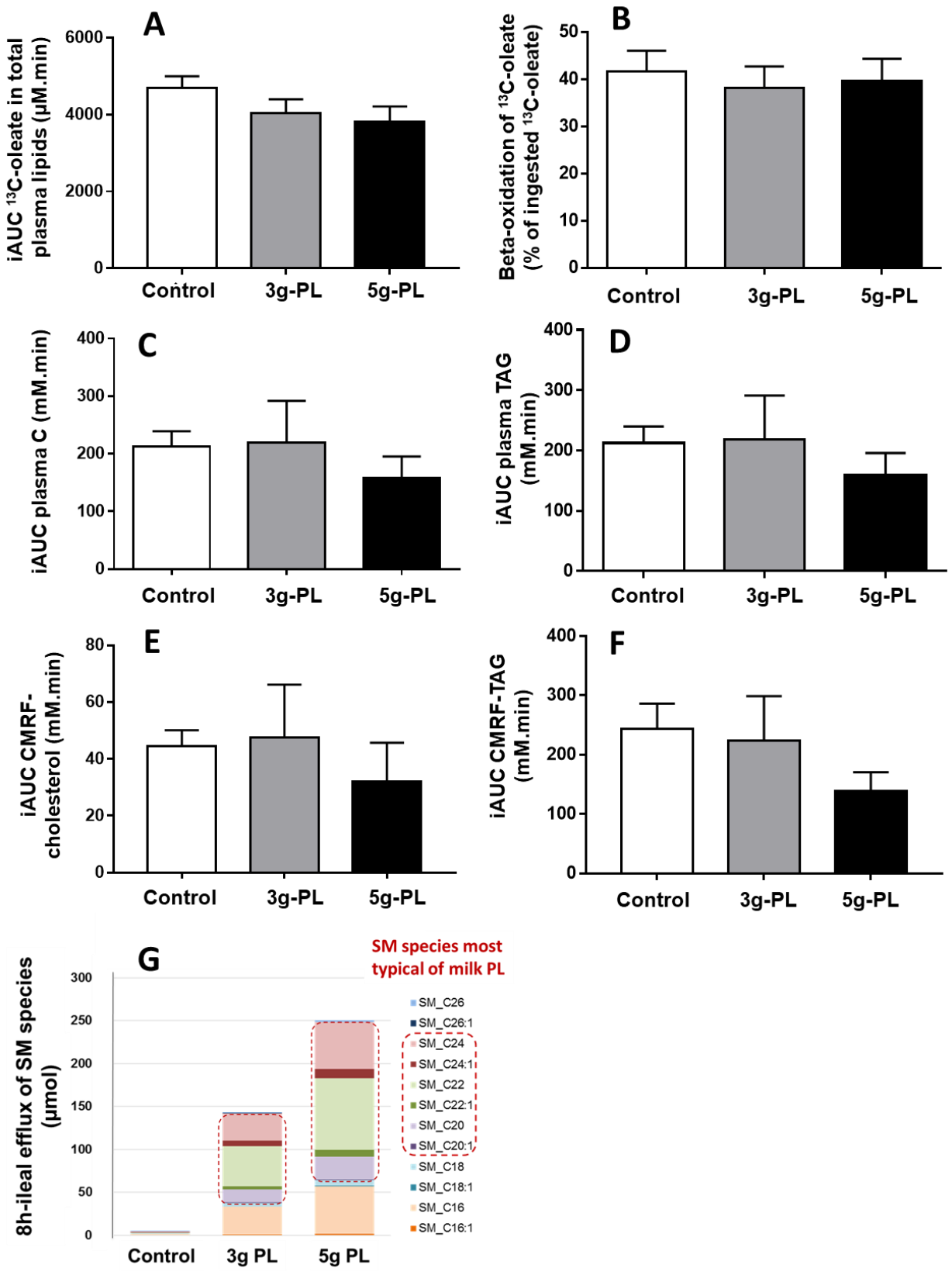


Supplementary figure S1. Study design and flow diagram of the VALOBAB-C trial. (A) Scheme of the intervention testing the metabolic impact of 4-week intervention with milk-PL enriched cream cheese in postmenopausal women. (B) CONSORT flow diagram of the VALOBAB-C trial in postmenopausal women. (C) Design of the metabolic exploration days performed both at the first visit (V1) and second visit (V2, 4 weeks after V1, at the end of the dietary intervention) of the VALOBAB-C trial.



Supplementary figure S2. Study design and flow diagram of the VALOBAB-D trial. (A) Scheme of the cross-over postprandial trial testing the digestion of meal with milk-PL enriched cream cheese in ileostomy subjects. (B) CONSORT flow diagram of the VALOBAB-D trial in ileostomy participants. (C) Design of the metabolic exploration days performed with each of the 3 cheeses (0g, 3g or 5g milk PL) in the VALOBAB-D trial.



Supplementary figure S3. (A-F) Postprandial fate of ^{13}C-oleate tracer and postprandial accumulation of total cholesterol and triglycerides in plasma and chylomicrons in the VALOBAB-D trial (all p_{meal}>0.1): (A) Incremental AUC (iAUC) of ^{13}C-oleate in plasma total lipids over 8h, (B) fraction of ingested ^{13}C-oleate that was beta-oxidized after 8h according to breath test, (C) iAUC of plasma cholesterol over 8h, (D) iAUC of plasma triglycerides over 8h, (E) iAUC of cholesterol of the chylomicron-rich fraction over 8h and (F) iAUC of triglycerides of the chylomicron-rich fraction over 8h. Data are mean ±SEM. (G) Composition of sphingomyelin molecular species in the 8h-ileal efflux in VALOBAB-D trial.