

Supplementary Materials

Fig S1. PECAM-1 and SMA expression in intimal fraction (A), and PECAM-1 expression in intimal fraction (EC) and media/adventitia (B). (A) and insulin tolerance test (B) in *db/+*, *db/db* and *db/db+BB* mice. Values are mean \pm SEM (n=5-6). Labelled column without a common letter differ, $P < 0.05$. *db/+*, Control mice fed a standard diet; *db/db*, diabetic mice fed a standard diet; *db/db+BB*, diabetic mice fed a blueberry supplemented diet; ECs, endothelial cells; PECAM-1, platelet endothelial cell adhesion molecule-1; SMA, smooth muscle actin.

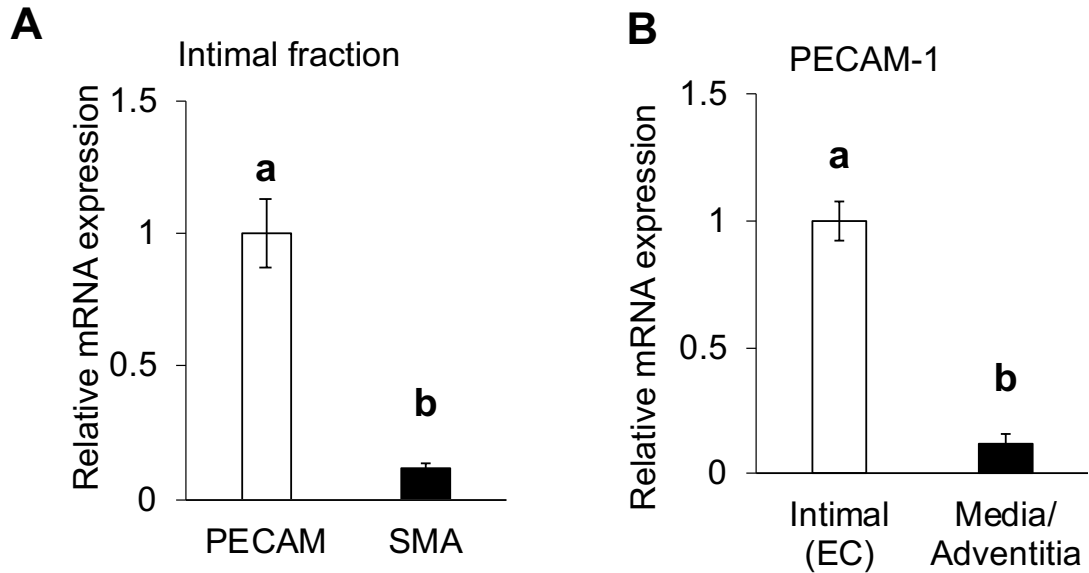


Fig S2. Body weight, n=16-20 (A); food intake, n=16-20 (B); fasting blood glucose, n=7-10 (C); non-fasting blood glucose, n=7-10 (D); serum cholesterol, n=5-8 (E); and serum triglycerides, n=5-8 in *db/+*, *db/db* and *db/db+BB* mice. Values are mean \pm SEM. Columns without a common letter differ, $P < 0.05$. *db/+*, Control mice fed a standard diet; *db/db*, diabetic mice fed a standard diet; *db/db+BB*, diabetic mice fed a blueberry supplemented diet.

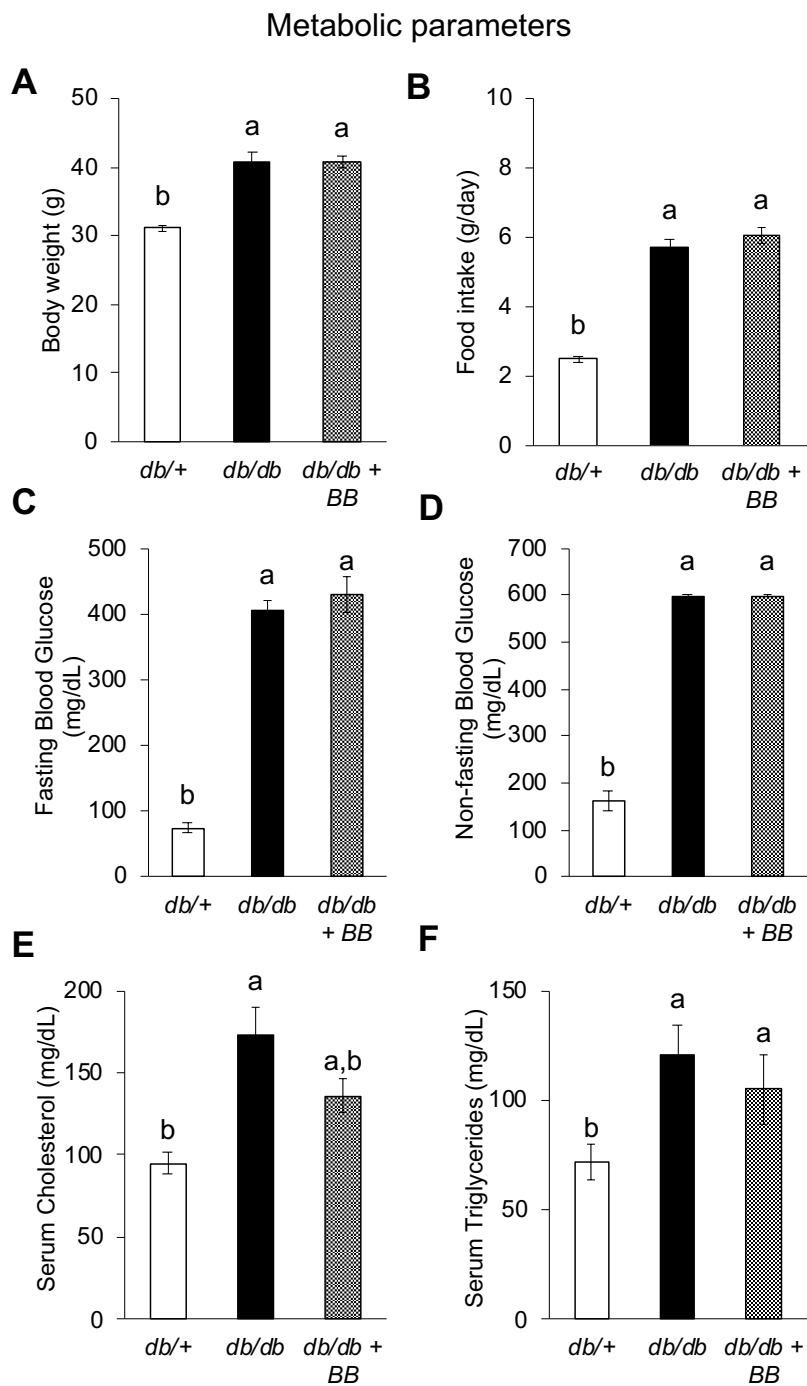


Fig S3. Glucose tolerance test (A) and insulin tolerance test (B) in *db/+*, *db/db* and *db/db+BB* mice. Values are mean \pm SEM (n=7-9). Labelled means without a common letter differ, $P < 0.05$. *db/+*, Control mice fed a standard diet; *db/db*, diabetic mice fed a standard diet; *db/db+BB*, diabetic mice fed a blueberry supplemented diet.

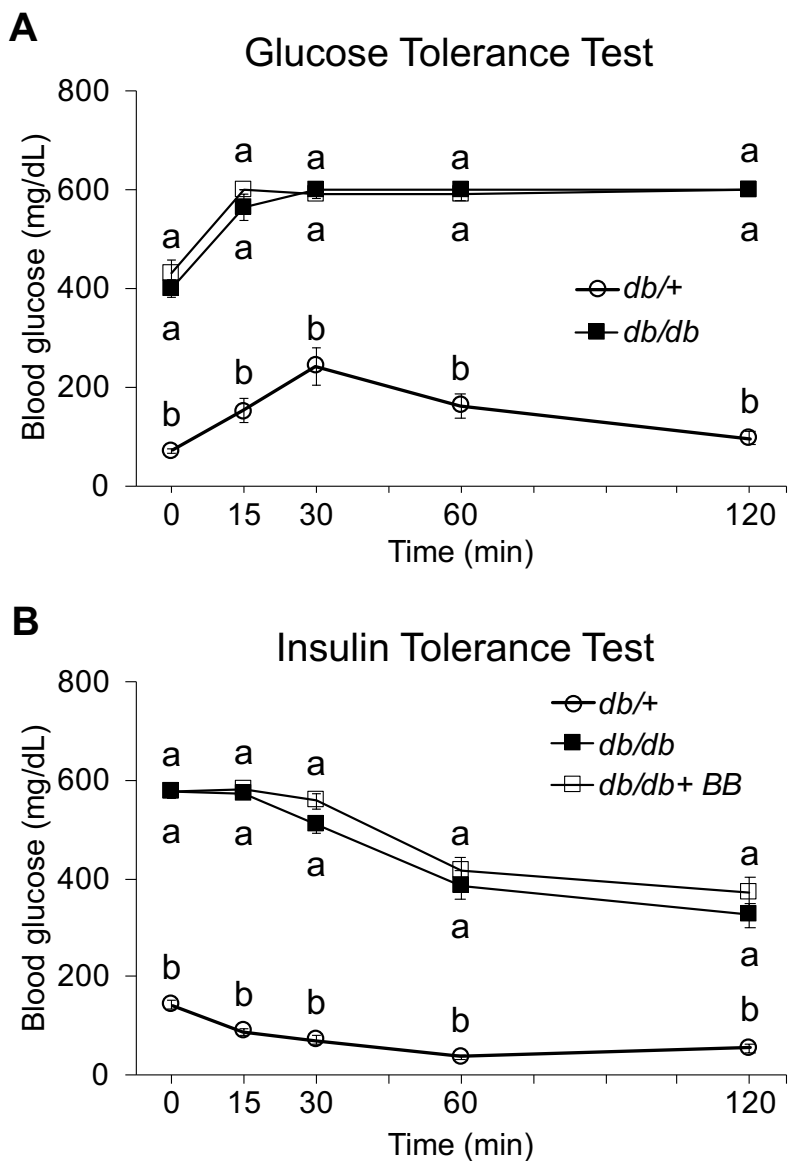
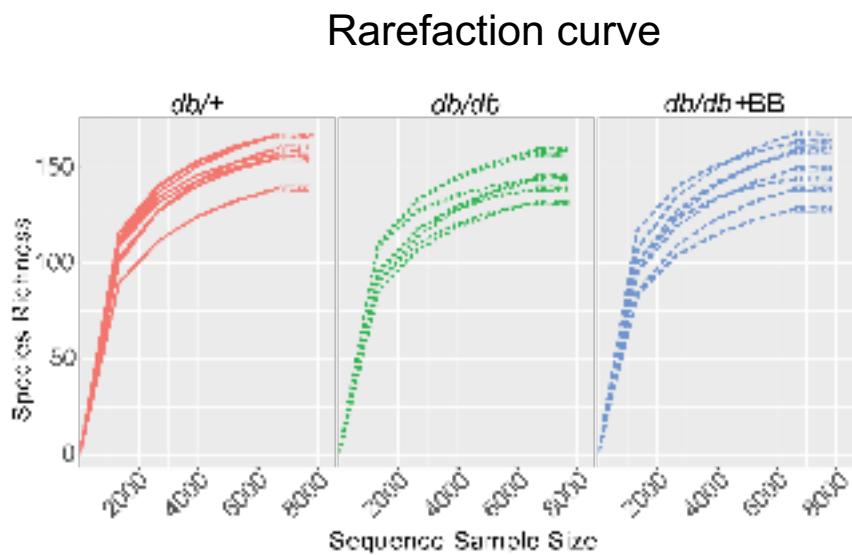


Fig S4. Rarefaction curve for *db/+*, *db/db* and *db/db+BB* mice (n=8). *db/+*, Control mice fed a standard diet; *db/db*, diabetic mice fed a standard diet; *db/db+BB*, diabetic mice fed a blueberry supplemented diet.



Supplementary Table. Standard diet and blueberry-supplemented diet formulation (Dyets Inc.)

Ingredient	Standard diet (g/kg)	Standard diet (kcal/g)	Blueberry supplemented diet (g/kg)	Blueberry supplemented diet (kcal/g)
Casein, High Nitrogen	200	716	200	716
L-Cystine	3	12	3	12
Sucrose	89	356	75	300
Cornstarch	397.5	1431	389.5	1402
Dyetrose	132	501.6	132	501.6
Corn Oil	70	630	70	630
Cellulose	50	0	45	0
Mineral Mix #210021	35	30.8	35	30.8
Vitamin Mix #310025	10	38.7	10	38.7
Choline Bitartrate	2.5	0	2.5	0
Dextrose	5	20	0	0
Fructose	6	24	0	0
Freeze-Dried blueberry	0	0	38	152