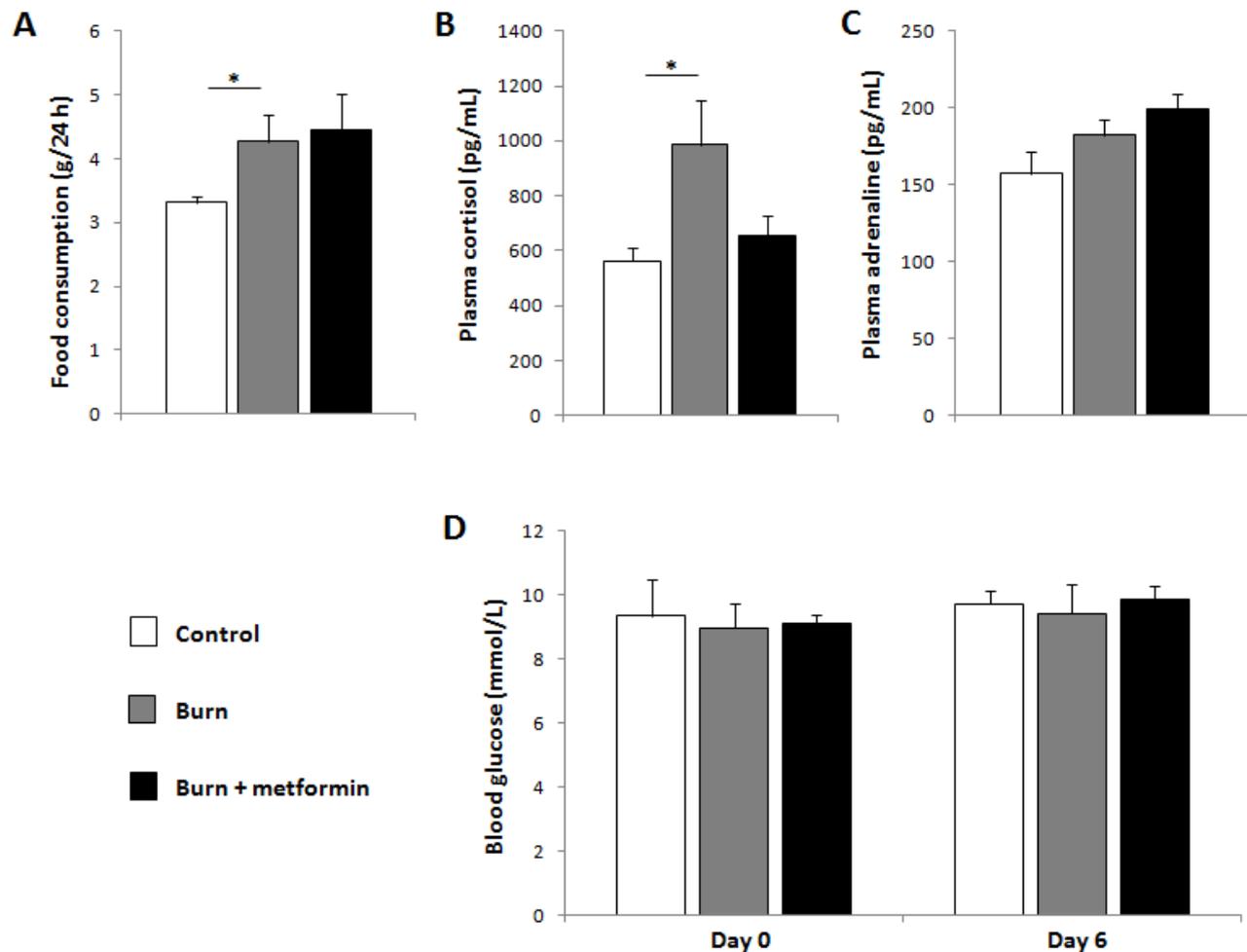
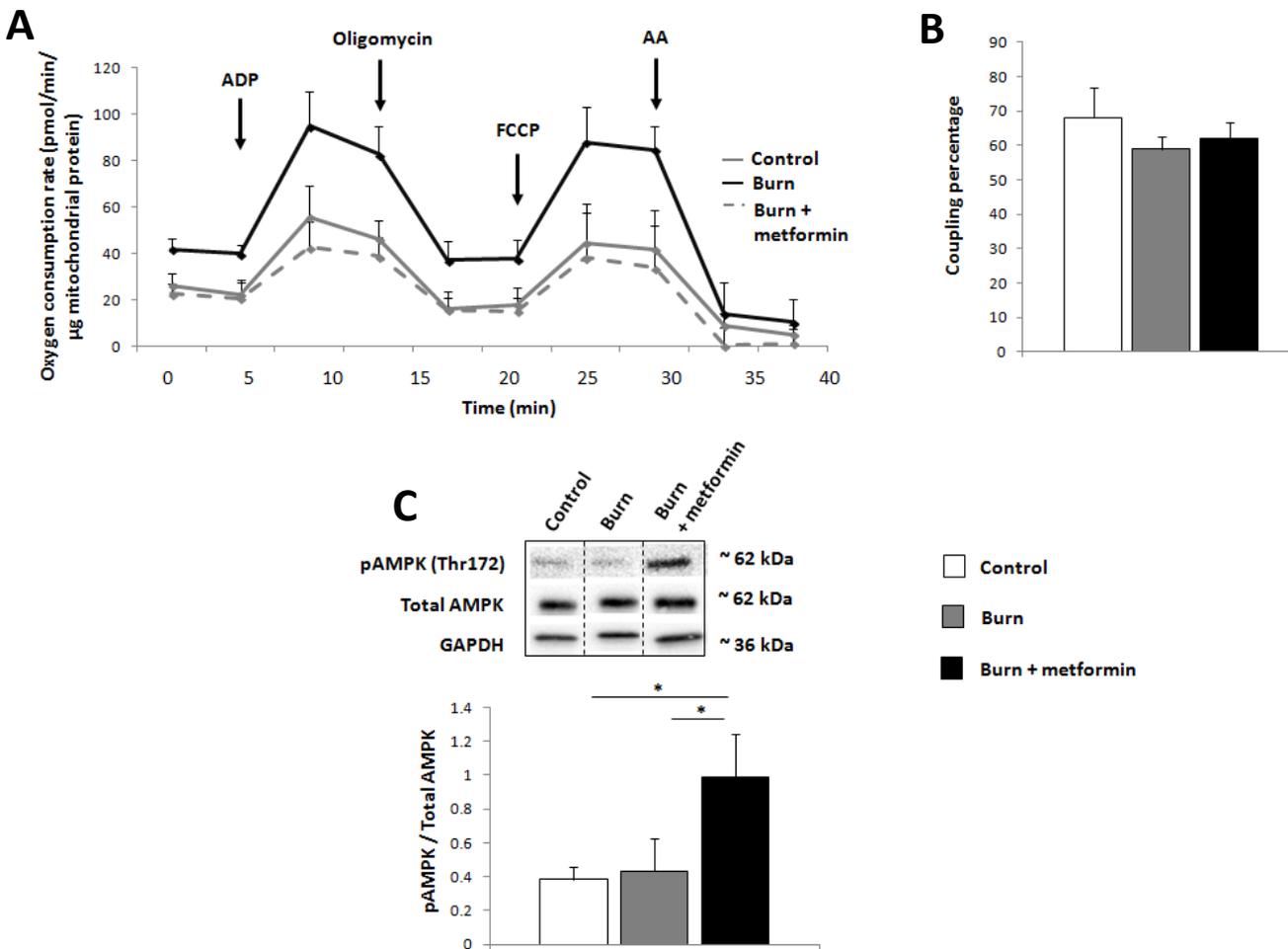


Supplementary Figure 1



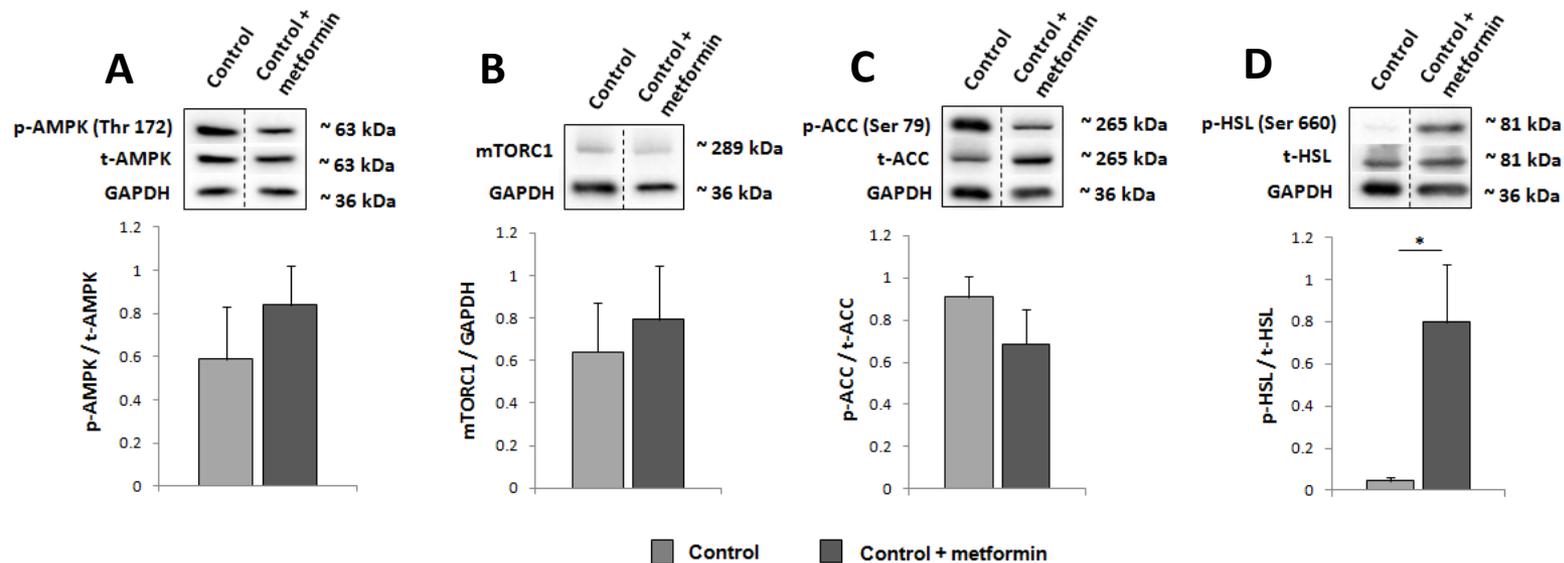
Supplementary Figure 1: Metformin does not significantly alter food consumption, stress hormones or plasma glucose post-burn. (A) Food consumption rates as expressed as g / 24h following thermal trauma. (B) Plasma cortisol at euthanasia (day 7) measured via ELISA (C) Plasma adrenaline at euthanasia (day 7) measured via ELISA. (D) Blood glucose levels as measured following tail-tip amputation with a glucometer (OneTouch UltraMini). ■: control (n = 6); ■: burn (n = 6); ■: burn + metformin treatment (n = 6). Values are presented as mean ± standard error. *p ≤ 0.05.

Supplementary Figure 2



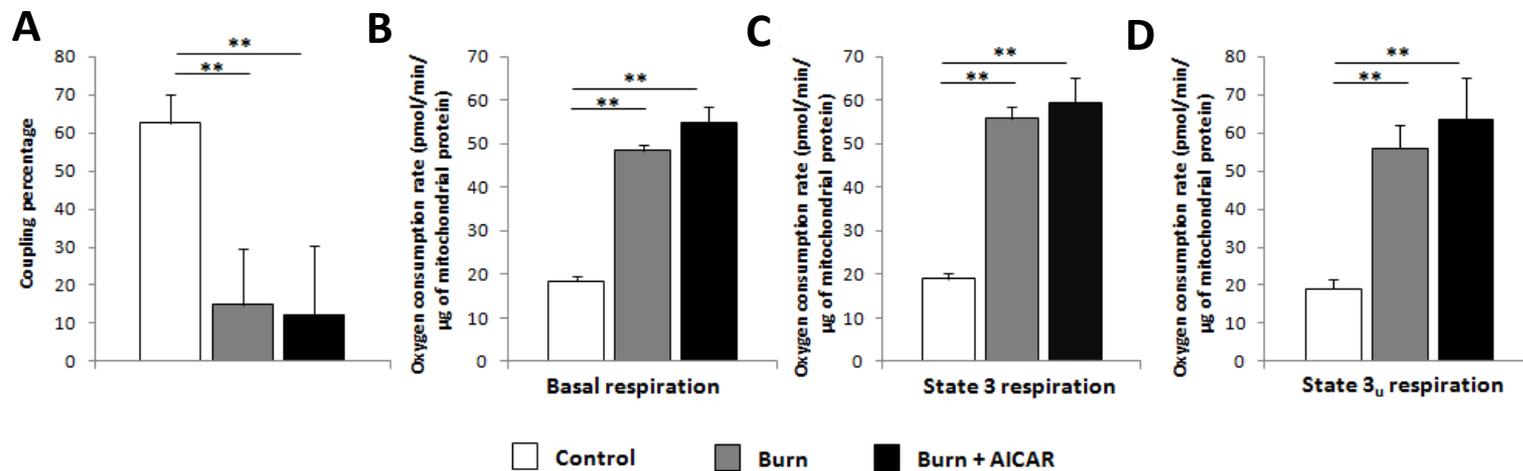
Supplementary Figure 2: Metformin decreases liver mitochondrial respiration, activating AMPK following thermal injury. **(A)** Seahorse XF96 respiration profiles of liver mitochondria from control mice (grey), mice subjected to thermal injury (black) and injured mice treated with metformin (100 mg/kg; blue). **(B)** Percentage of the electron transport chain coupled to ATP synthesis as measured by the Seahorse XF stress test report generator. **(C)** Cropped representative Western blot of phosphorylated AMP-activated protein kinase (Thr 172; p-AMPK / t-AMPK) in liver. Densitometric measurements of Western blots were performed using ImageJ. ■: control (n = 8); ■: burn (n = 8); ■: burn + metformin treatment (n = 8). Values are presented as mean \pm standard error. * $p \leq 0.05$.

Supplementary Figure 3



Supplementary Figure 3: Metformin does not reduce lipolysis and β -oxidation in the inguinal white adipose tissue (iWAT) of murine controls. **(A-D)** Representative Western blots of phosphorylated AMP-activated protein kinase (Thr 172; p-AMPK / t-AMPK), mammalian target of rapamycin complex 1 (mTORC1), phosphorylated acetyl-CoA carboxylase (Ser 79; p-ACC / t-ACC) and phosphorylated hormone sensitive lipase (Ser 660; p-HSL / t-HSL) in iWAT. Densitometric measurements of Western blots were performed using ImageJ. ■: control (n = 8); ■: control + metformin (100 mg/kg; n = 8). Values are presented as mean \pm standard error. *p \leq 0.05.

Supplementary Figure 4



Supplementary Figure 4: 5-aminoimidazole-4-carboxamide ribonucleotide (AICAR) has no effect on electron transport chain coupling and respiration when compared to burn alone. **(A)** Percentage of the electron transport chain coupled to ATP synthesis as measured by the Seahorse XF stress test report generator. Basal **(B)**, state 3 **(C)** and state 3_u **(D)** respiration parameters in isolated mitochondria as measured via Seahorse XF96 extracellular flux assays. ■: control (n = 8); ■: burn (n = 8); ■: burn + AICAR treatment (n = 8). Values are presented as mean \pm standard error. **p \leq 0.01.