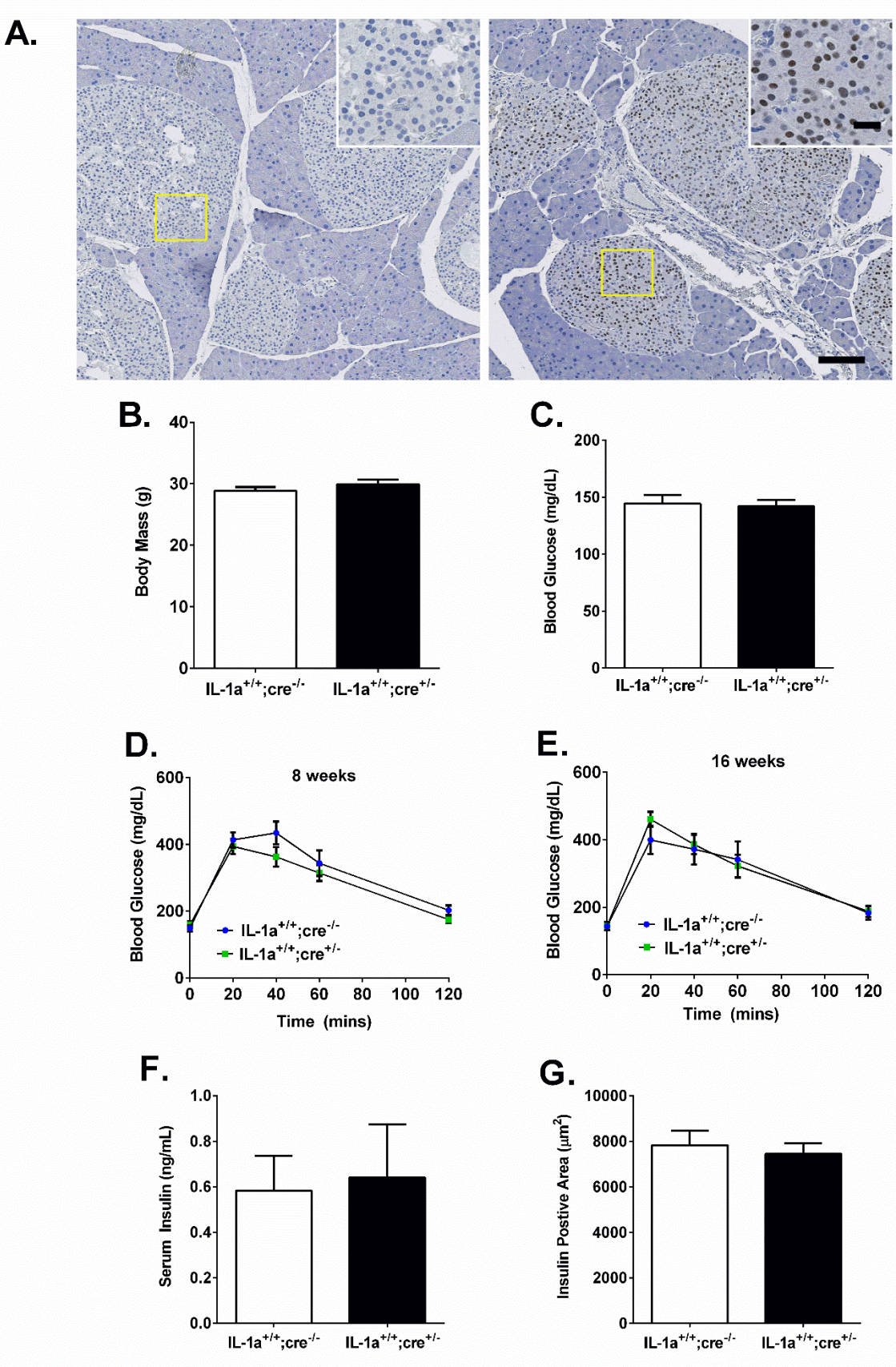
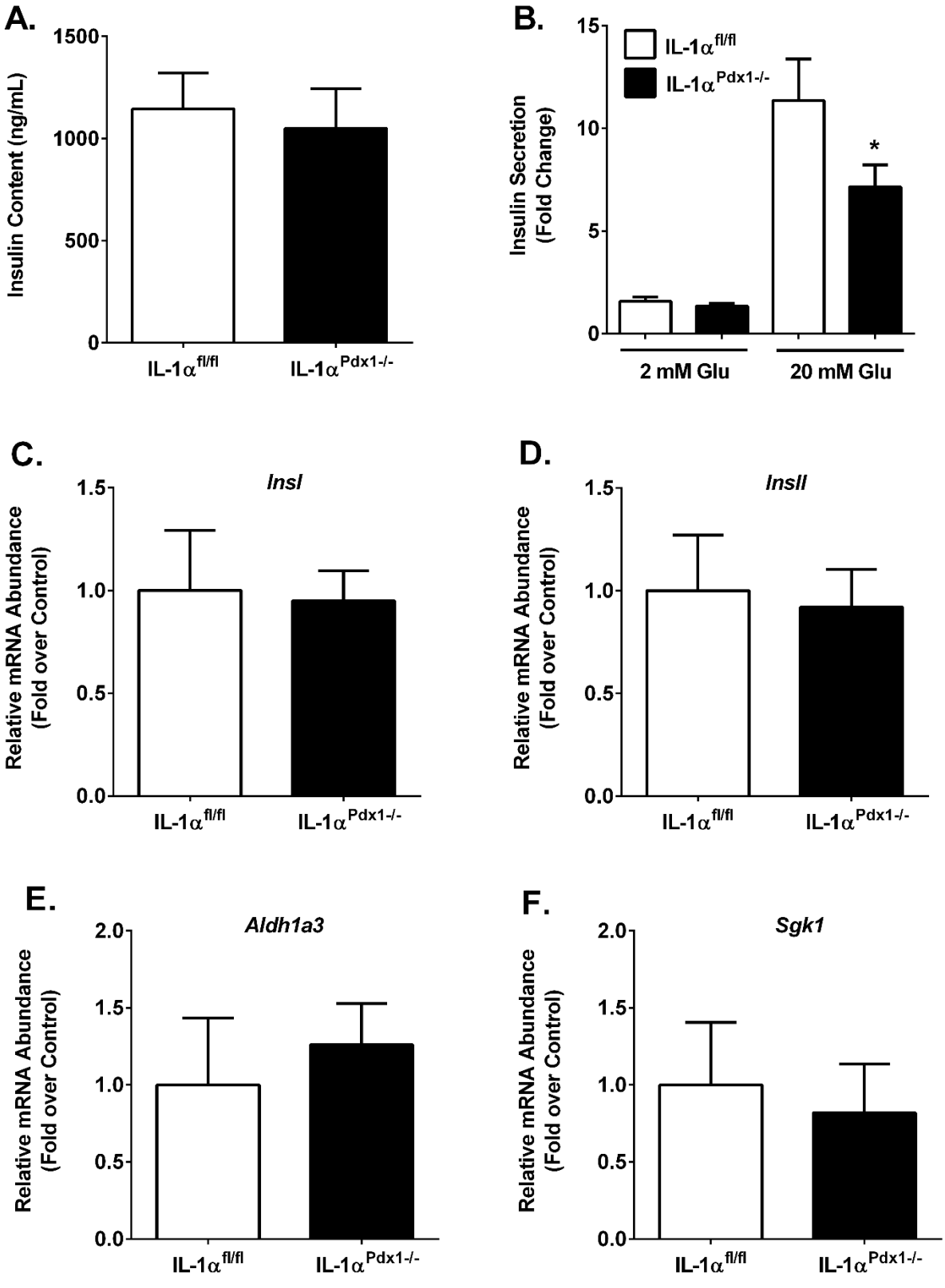
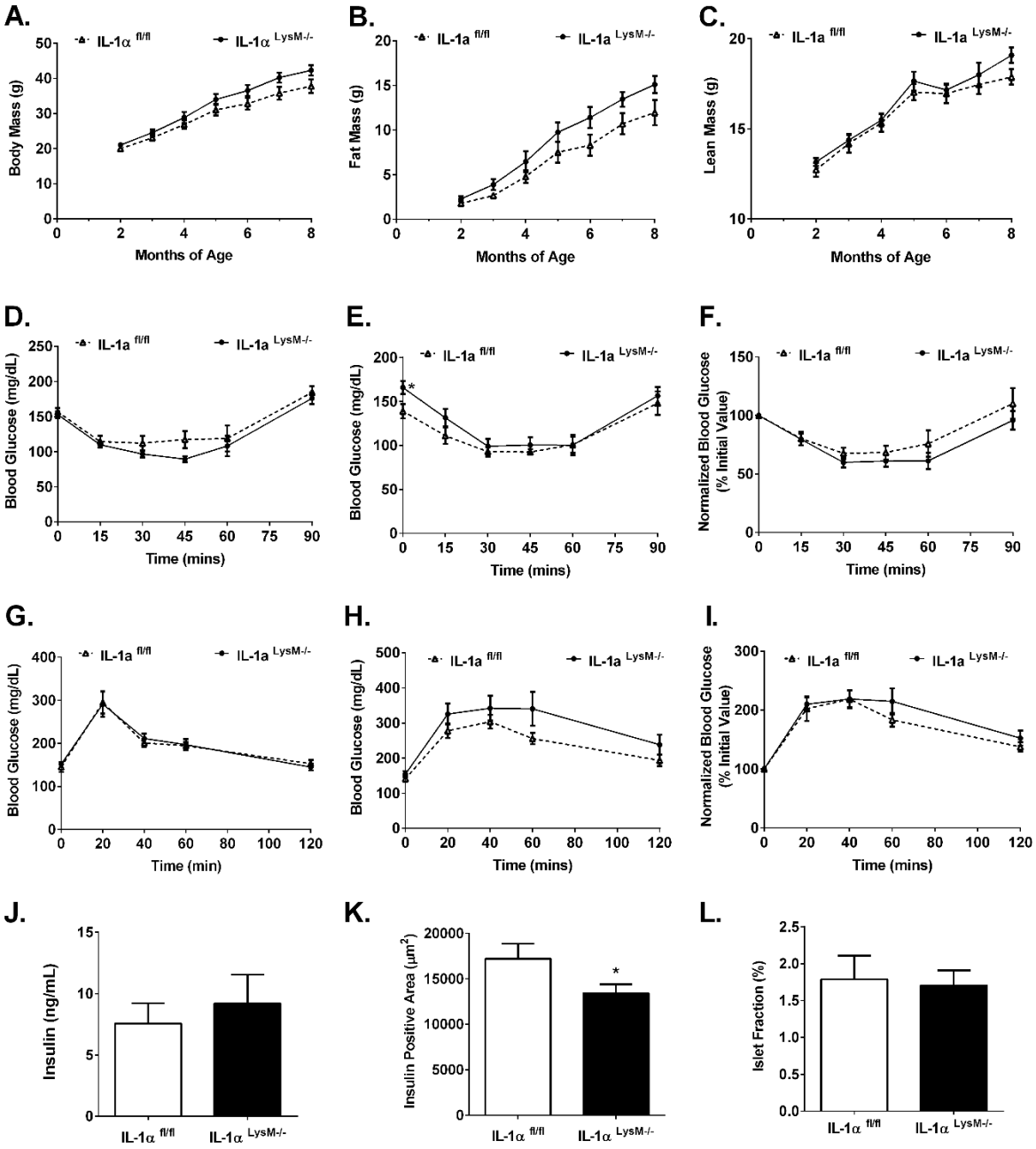

A.
B.
Body Mass (g)
40
30
20
10
0
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-
C.
Blood Glucose (mg/dL)
200
150
100
50
0
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-
D.
8 weeks
Blood Glucose (mg/dL)
600
400
200
0
0 20 40 60 80 100 120
Time (mins)
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-
E.
16 weeks
Blood Glucose (mg/dL)
600
400
200
0
0 20 40 60 80 100 120
Time (mins)
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-
F.
Serum Insulin (ng/mL)
1.0
0.8
0.6
0.4
0.2
0.0
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-
G.
Insulin Postive Area (μm2)
10000
8000
6000
4000
2000
0
IL-1a+/+;cre-/-
IL-1a+/+;cre+/-

Supplementary Figure 1. Non-floxed cre-positive mice display no alterations in body mass, glucose tolerance, or insulin levels compared to control mice. (A) cre staining in pancreatic sections of 9 month old male IL-1$\alpha^{fl/fl}$ (left panel) and IL-1$\alpha^{Pdx1-/-}$ (right panel) mice. Scale bar = 100 μm for larger image and 20 μm for inset. Body mass (B) and fasting blood glucose levels (C) in 16 week old male IL-1a$^{+/+}$; cre$^{-/-}$ and IL-1a$^{+/+}$; cre$^{+/-}$ mice. GTTs conducted using (D) 8 week old and (E) 16 week old male IL-1a$^{+/+}$; cre$^{-/-}$ and IL-1a$^{+/+}$; cre$^{+/-}$ mice. Serum insulin (F) and insulin positive area (G) in 16 week old male IL-1a$^{+/+}$; cre$^{-/-}$ and IL-1a$^{+/+}$; cre$^{+/-}$ mice.


A.
Insulin Content (ng/mL)
1500
1000
500
0
IL-1α fl/fl
IL-1α Pdx1-/-
B.
Insulin Secretion (Fold Change)
15
10
5
0
IL-1α fl/fl
IL-1α Pdx1-/-
*
2 mM Glu
20 mM Glu
C.
Insl
Relative mRNA Abundance (Fold over Control)
1.5
1.0
0.5
0.0
IL-1α fl/fl
IL-1α Pdx1-/-
D.
Insll
Relative mRNA Abundance (Fold over Control)
1.5
1.0
0.5
0.0
IL-1α fl/fl
IL-1α Pdx1-/-
E.
Aldh1a3
Relative mRNA Abundance (Fold over Control)
2.0
1.5
1.0
0.5
0.0
IL-1α fl/fl
IL-1α Pdx1-/-
F.
Sgk1
Relative mRNA Abundance (Fold over Control)
2.0
1.5
1.0
0.5
0.0
IL-1α fl/fl
IL-1α Pdx1-/-

Supplementary Figure 2. Pancreatic deletion of IL-1α does not alter intracellular insulin content, or promote de-differentiation, but decreases glucose-stimulated insulin secretion. (A) Insulin content in islets of 5 month old male IL-1α$^{fl/fl}$ and IL-1α$^{Pdx1-/-}$ mice. (B) Glucose-stimulated insulin secretion from islets of 5 month old male IL-1α$^{fl/fl}$ and IL-1α$^{Pdx1-/-}$ mice in response to 2 mM or 20 mM glucose. (C-F). qPCR analysis of transcript levels of the *InsI* (C), *InsII* (D), *Aldh1a3* (E), and *Sgk1* (F) genes in islets from 5 month old male IL-1α$^{fl/fl}$ and IL-1α$^{Pdx1-/-}$ mice. (A-B) n = 7-9 per group; (C-D) n= 6-7 per group. *, $p < 0.05$ vs. IL-1α$^{fl/fl}$ control at 20 mM glucose. Glu = glucose.



Supplementary Figure 3. Deletion of IL-1α in myeloid cells has no impact on body composition, whole body glucose tolerance, or insulin sensitivity, in female mice. (A) Body mass, (B) fat mass, and (C) lean mass in female IL-1$\alpha^{fl/fl}$ and IL-1$\alpha^{LysM-/-}$ mice from 2- 8 months of age. (D-F) Insulin tolerance tests (ITT) performed in (D) 3 month and (E) 7 month old female

IL-1α$^{fl/fl}$ and IL-1α$^{LysM-/-}$ mice. (F) ITT data from panel E. expressed as a percentage of the initial (i.e., pre-glucose i.p.) value. (G-I) Glucose tolerance tests (GTT) conducted in (G) 4 month and (H) 8 month old female IL-1α$^{fl/fl}$ and IL-1α$^{LysM-/-}$ mice. (I) GTT data from panel H. expressed as a percentage of the initial (i.e., pre-glucose i.p.) value. (J) Serum insulin, (K) insulin positive area, and (L) islet fraction from 9 month old female IL-1α$^{fl/fl}$ and IL-1α$^{LysM-/-}$ mice. n = 7-8 per group. *, $p < 0.05$.