Supplemental information

Smooth Muscle Insulin Receptor Deletion Causes Voiding Dysfunction: A Mechanism for Diabetic Bladder Dysfunction

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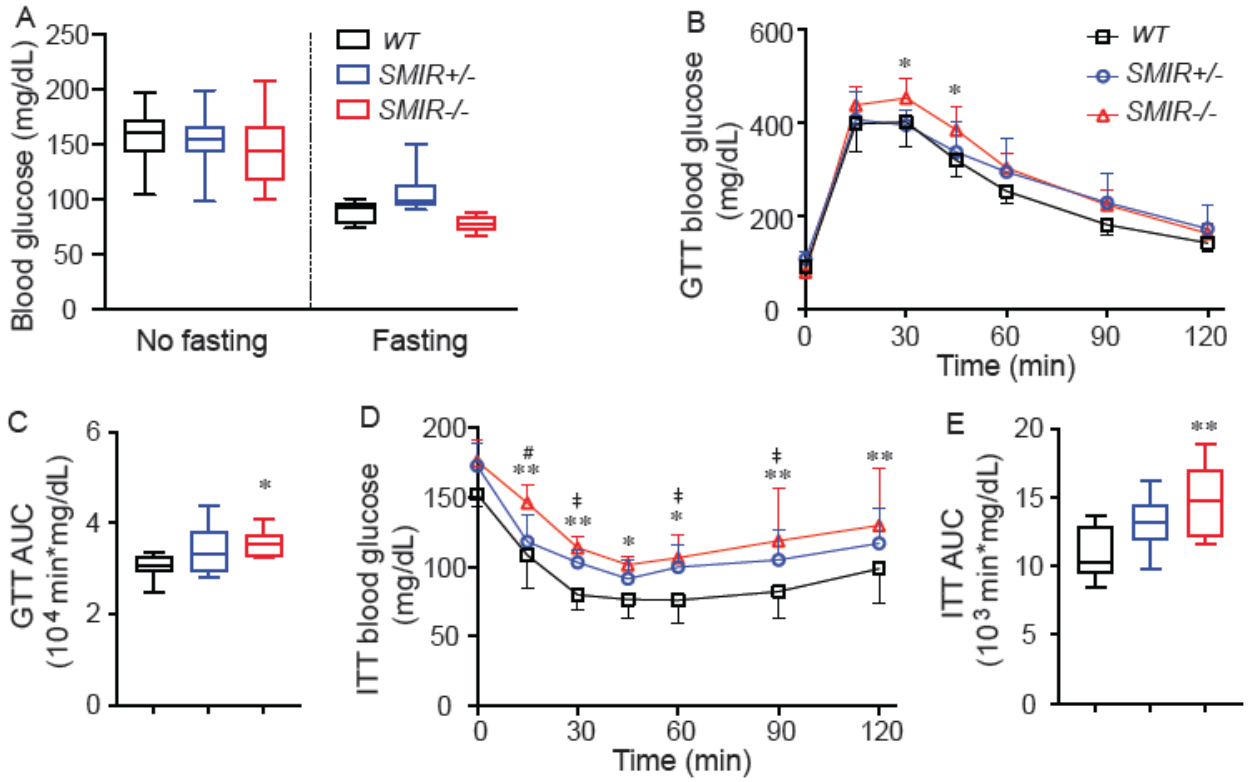
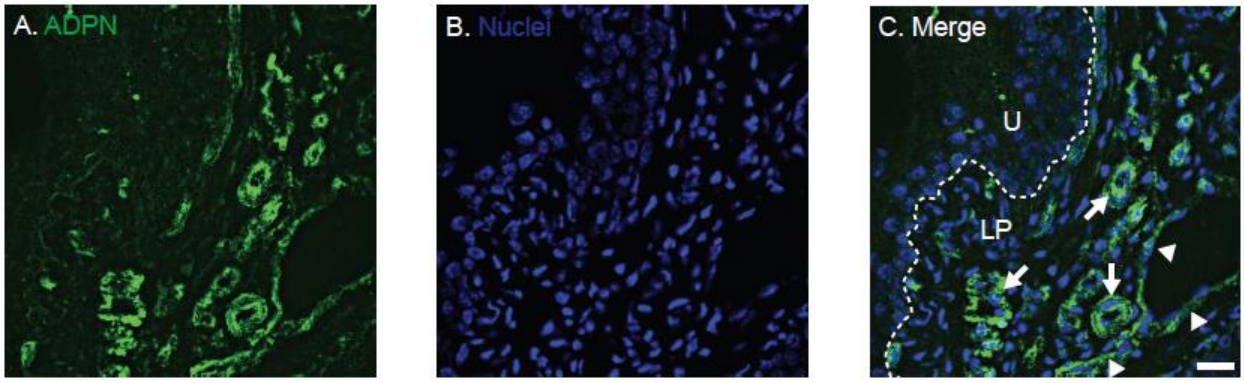
Supplemental figure 1. Male *SMIR-/-* mice exhibit impaired glucose and insulin tolerance. (A) Blood glucose levels of male mice fasted (n=9, 9, and 6 for *WT, SMIR+/- and SMIR-/-* mice) for 14 hours, or non-fasted (n=11, 17, and 10 for *WT, SMIR+/- and SMIR-/-* mice). (B) GTT in male *WT* (n=9), *SMIR+/-* (n=9) and *SMIR-/-* (n=6) mice and (C) is area under the curve for (B). (D) ITT in male *WT* (n=10), *SMIR+/-* (n=8) and *SMIR-/-* (n=5) mice and (E) is area under the curve for (D). Data are shown as boxes and whiskers, the centerline is the median of the data set, the box represents 75% of the data, and bars indicate whiskers from minimum to maximum. Data were analyzed using the student *t* test. *: $p < 0.05$ and **: $p < 0.01$ compared to *WT* mice, #: $p < 0.05$ and ##: $p < 0.01$ compared between *SMIR+/-* and *SMIR-/-* mice.



Supplemental figure 2. Adiponectin expression in bladder wall. Immunostaining and imaging of adiponectin (green) in the vasculature (white arrow) and BSM cells (white arrow head) of bladder wall. Nuclei are stained with Dapi (blue). White bar represents 20 μm length.



Supplemental table 1.
Information of antibodies used in the study

Antibody	Host	Company	Catalog No.
Chrm3	Rabbit	Thermo Fisher Scientific	PA5-77485
P2x1	Rabbit	Alomone lab	APR-001
Itgβ1	Rabbit	Thermo Fisher Scientific	9699
Sm22	Rabbit	ABCAM	Ab14106
Cav1.2	Rabbit	EMD Millipore	AB5256
Insrβ	Rabbit	Cell Signaling Technology	23413
Akt	Rabbit	Cell Signaling Technology	9272
p-Akt	Rabbit	Cell Signaling Technology	4060
FoxO1	Rabbit	Cell Signaling Technology	2880
FoxO3a	Rabbit	Cell Signaling Technology	12829
FoxO6	Rabbit	Brunet lab, Stanford Univ.	NA
mTOR	Rabbit	Cell Signaling Technology	2983
p-mTOR	Rabbit	Cell Signaling Technology	5536
Adpn	Goat	R&D system	AF1119
Ampk	Rabbit	Cell Signaling Technology	2532
p-Ampk	Rabbit	Cell Signaling Technology	2535
β actin	Rabbit	Cell Signaling Technology	4967