

Supplementary figure legends

Supplementary Figure 1. Blood Glc level after administration of pioglitazone in elderly mice. Blood Glc was measured before and after intraperitoneal injection of pioglitazone or DMSO in elderly mice. They were fasted immediately after these treatments. $N = 4$, $*P < 0.05$ vs. control.

Supplementary Figure 2. Effects of pioglitazone on sepsis in young mice. (a) Survival rates of young mice (7 wk of age) injected with almost lethal dose (1×10^9 CFU) of *E. coli*. Prior to bacterial challenge, they had been either treated with pioglitazone ($n = 25$), GW9662 and pioglitazone ($n = 25$), or DMSO ($n = 25$). (b) Bacterial counts in blood 3 h after administration of sublethal dose (6×10^8 CFU) of *E. coli* to mice ($n = 5$, respectively), which had been treated in the same manner as in (a). Similar results were obtained in 2 other experiments. (c) Serum TNF- α , IL-12 p40, and IFN- γ levels in mice challenged with sublethal dose (6×10^8 CFU) of *E. coli*. Data are means \pm SEM from 5 mice in each group. $*P < 0.05$ vs. control.

Supplementary Figure 3. Effects of pioglitazone on populations of liver phagocytes in young mice. A and B, Surface expressions of liver MNCs were analyzed by flow cytometry 3 h after administration of pioglitazone to young mice. A, Populations of recruited M ϕ (solid line), neutrophils (dotted line), and resident Kupffer cells (dashed line) are shown in the left panels, and the CD11b^{high}Gr-1⁺ population (neutrophils) is shown in the right panels. B, Ly6C expression in recruited M ϕ , neutrophils, and resident

Kupffer cells of control or pioglitazone-treated mice. Data are means \pm SEM for 4 mice in each group. * $P < 0.05$ vs. control.

Supplementary Figure 4. Effects of pioglitazone on uptake of FITC-*E. coli* by circulating neutrophils. Bacteria growth inhibitory (a) and bactericidal (b) activities of circulating neutrophils obtained from control or pioglitazone treated elderly mice. After incubation with *E. coli*, cell cultures were either homogenously diluted 10-fold with PBS (a), or lysed (b) before placing and incubation. Data are means \pm SEM from 4 samples in each group. * $P < 0.05$ vs. control.

Supplementary Figure 5. Effects of pioglitazone on uptake of FITC-*E. coli* by liver recruited M ϕ and neutrophils. Liver MNCs from control and pioglitazone-treated mice were either chilled on ice or incubated at 37°C, with FITC-*E. coli* for 1 h. After surface staining, FITC-*E. coli*-positive F4/80⁺ CD11b⁺ and CD11b^{high} cell populations were determined by flow cytometry ($n = 4$, respectively). Results are mean \pm SEM.

Supplementary Table 1. Sequences for PCR primers.

Gene		Sequence
Nos2	left	5'-CTTTGCCACGGACGAGAC-3'
	right	5'-TCATTGTACTCTGAGGGCTGAC-3'
Mrc1	left	5'-CCACAGCATTGAGGAGTTTG-3'
	right	5'-ACAGCTCATCATTTGGCTCA-3'
Arg1	left	5'-GAATCTGCATGGGCAACC-3'
	right	5'-GAATCCTGGTACATCTGGGAAC-3'
Retnla	left	5'-CCCTCCACTGTAACGAAGACTC-3'
	right	5'-CACACCCAGTAGCAGTCATCC-3'
phosphofructokinase	left	5'-ATTGACCGGCATGGAAAG-3'
	right	5'-AAGCCCAGCCTCTGAACC-3'
pyruvate kinase	left	5'-AAGGGGGACTACCCTCTGG-3'
	right	5'-CCTCGAATAGCTGCAAGTGG-3'
hexokinase-1	left	5'-GTGGACGGGACGCTCTAC-3'
	right	5'-TTCAGTGTGTTGGTGCATGATT-3'
Acadm	left	5'-AGTACCCTGTGGAGAAGCTGAT-3'
	right	5'-TCAATGTGCTCACGAGCTATG-3'
Cpt2	left	5'-CCAAAGAAGCAGCGATGG-3'
	right	5'-TAGAGCTCAGGCAGGGTGA-3'
ATP synthase	left	5'-GCAGCTCGGGACTCAGTG-3'
	right	5'-AAGGACAGAGGAGAGCCTGA-3'
Cox4il	left	5'-TCACTGCGCTCGTTCTGAT-3'
	right	5'-CGATCGAAAGTATGAGGGATG-3'
Uqerc1	left	5'-GACTACCTCAACAGACATTACAAAGC-3'
	right	5'-GTTTCTGGGCAAGGTCCA-3'
Uqerc2	left	5'-GCAACTGCTAGAGCCATGAA-3'
	right	5'-CAACTTTGAGGGAATAAAATCTCG-3'
Rps18	left	5'-TTCTGGCCAACGGTCTAGACAAC-3'
	right	5'-CCAGTGGTCTTGGTGTGCTGA-3'