

Supplemental Figure 1: Serum FGF23, phosphate and 1,25(OH)vitamin D levels in mice and patients. FGF23 serum levels in (A) mice (n=4) and (B) patients (n=8-13). Phosphate serum levels in (C) mice (n=4) and (D) patients (n=8-13). 1,25(OH) vitamin D serum levels in (E) mice (n=4) and (F) patients (n=8-13). * p < 0.05, ANOVA plus Bonferroni testing.



Supplemental Figure 2: **pan-FGF receptor blockade alleviates pneumonia in CKD mice.** Pneumonia was induced in CKD mice and sham-operated mice which received either the pan-FGF receptor antagonist PD173074 or vehicle control. After 24 hours, neutrophil were counted in the BAL **(A)** and CFUs were analysed in the BAL **(B)**, lung tissue **(C)** and spleen **(D)** (n=4). * p <0.05, ANOVA plus Bonferroni testing.



Supplemental Figure 3: Serum creatinine levels in sham and CKD mice. 5/6-nephrectomy or sham-operation was performed in WT mice and serum creatinine levels were analysed after 10 day (n=4). * p <0.05, ANOVA plus Bonferroni testing.



Supplemental Figure 4. (A) Timeline of adoptive transfer experiments.



Supplemental Figure 5: **FGFR2 and PKA knockdown in HL60 cells.** FGFR2 or PKA was knocked down in HL60 cells by lentiviral transfection. **(A)** FGFR2 knockdown and **(B)** PKA knockdown was verified by western blotting (exemplary blots from 4 experiments). **(C)** FGFR2 knockdown in murine neutrophils after retroviral transduction *in vivo* (exemplary blots from 4 experiments).



Supplemental Figure 6: **FGF23 inhibits integrin activation independent of** α -**Klotho.** Isolated human neutrophils were pretreated with or without FGF23 (100 ng/ml) and/or D-saccharid acid 1,4-lactone monohydrate (DLAS, 10 μ M) for 30 minutes and stimulated with IL-8 (100 ng/ml) at 37°C for 5 minutes and binding of the reporter antibody mAb24 was assessed by flow cytometry (n=4). * p <0.05, ANOVA plus Bonferroni testing.



Supplemental Figure 7: Serum FGF23 levels in CKD mice before and after administration of FGF23-neutralizing antibody. CKD was induces in WT mice and FGF23 serum levels were measured before and after administration of a FGF23-neutralizing antibody (3 mg/kg body weight, n=4). * p < 0.05, Wilcoxon-test.



Supplemental Figure 8: **FGFR2 expression on neutrophils after retroviral transduction.** Lethally irradiated WT mice were transplanted with hematopoietic stem cells that had been retrovirally transduced with FGFR2 or scrambled shRNA. FGFR2 expression of CD45⁺/Ly6G⁺ neutrophils was analyzed by flow cytometry. Shaded grey histogram represents isotype control, dotted line represents FGFR2 expression of FGFR2 knockdown mice and solid line represents control mice. (n > 5000 cells per condition). * p <0.05