

Supporting information

Table S1. Bacterial species observed between health and periodontitis subjects by Human Oral Microbe Identification Microarray (HOMIM)

Table S2. Microorganisms significantly correlated with periodontal disease

Figure S1. IL-6 production from HPBMs after stimulation with different concentrations of LPS, Pam3, iE-DAP and MDP.

HPBMs were stimulated with different concentration of LPS, Pam₃CSK₄, ie-DAP, MDP and IL-6 production of culture supernatants were detected at 12h after stimulation. Data are shown as mean \pm SD of triplicate samples from one representative of two independent experiments. Asterisks indicate statistically significant to negative control ($P < 0.05$) as determined by One-way ANOVA with Bonferroni post-test analysis.

Figure S2. IL-6 production from BMDMs after stimulation with different concentrations of LPS, Pam3, iE-DAP and MDP.

BMDMs from WT mice were stimulated with different concentration of LPS, Pam₃CSK₄, ie-DAP, MDP and IL-6 production of culture supernatants were detected at 12h after stimulation. Data are shown as mean \pm SD of triplicate samples from one representative of two independent experiments. Asterisks indicate statistically significant to negative control ($P < 0.05$) as determined by One-way ANOVA with Bonferroni post-test analysis.

Figure S3. IL-6 production from wild-type (WT) and knock-out (KO) mice Bone marrow-derived macrophages (BMDMs) after exposure to periodontal bacteria

BMDMs from MyD88 and different TLRs KO mice were stimulated with *C. concisus*, *C. rectus* and *S. infelix* bacterial species that can induce robust IL-6 production to WT BMDMs at MOI 1:1. 50 ng/ml E. coli LPS were used as positive control for stimulation. Culture supernatants were also collected for IL-6 detection at 12h after stimulation. Data are shown as mean \pm SD of triplicate samples from one representative of three independent experiments. Asterisks indicate statistically significant to culture medium negative control ($P < 0.05$) as determined by One-way ANOVA with Bonferroni post-test analysis.