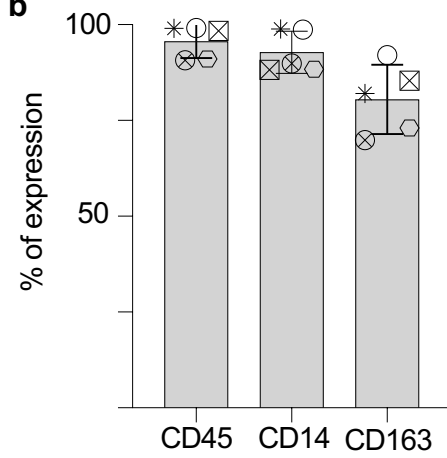


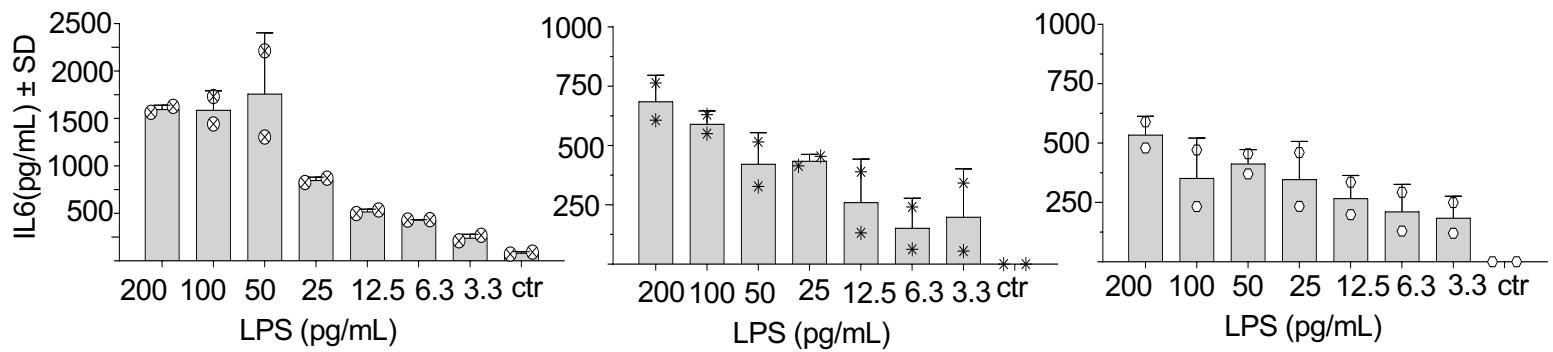
Figure S1. iMonoMac as efficient detection tool for pyrogens and spiked pharmaceutical preparations compared to standard monocytes. (a) IL-6 release measured with an ELISA after the incubation of the monocytes with either rek.Flagellin (Flg) or heat killed staphylococcus aureus (HKSA) (b) ($n = 2-3$ of biological repeats, mean \pm SD, biological repeats, two way ANOVA with Tukey's multiple comparisons test). (c) Endotoxin calibration curve, plotting the optical density in relation to the WHO-LPS concentration (the plotted values are the average values of $n = 2$). iMonoMac: iPSC derived macrophages, MDM: monocyte derived macrophages, MM6: Mono-Mac-6. OD: optical density. *Indicates significant difference between iMonoMac and MM6, \neq indicates significant difference between iMonoMac and MDM. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$, $\neq p < 0.05$, $\neq, \neq p < 0.01$, $\neq, \neq, \neq p < 0.001$, $\neq, \neq, \neq p < 0.0001$.

a

iPSC line symbol	Gender	Symbol
iPSC line#1	Male	⊗
iPSC line#2	Male	✱
iPSC line#3	Male	⬡
iPSC line#4	Female	○
iPSC line#5	Female	⊠
iPSC line#6	Female	◇

b**c**

Male donors

**d**

Female donors

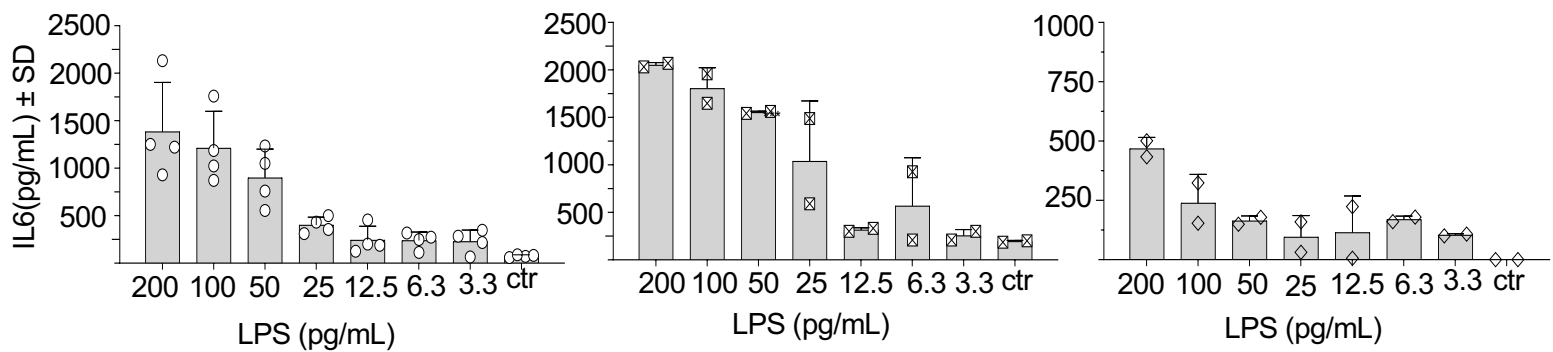
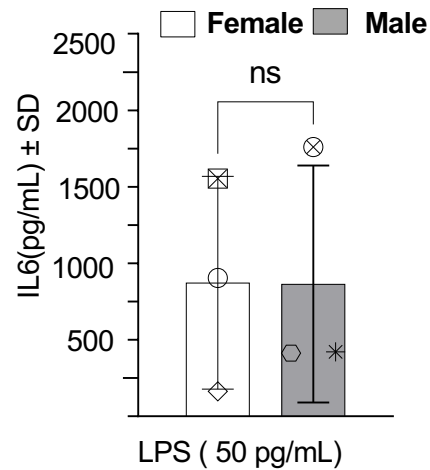
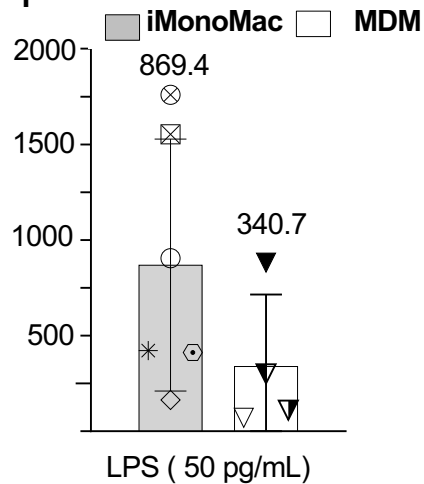
**e****f**

Figure S2. Investigating the influence of the parental iPSC cell line/ donor on the derived iMonoMac sensitivity to pyrogen detection. (a) Table summary on the gender and the designated symbol for the six different iPSC cell lines chosen for the study. (b) Bar chart quantifying the percentage (%) of surface marker expression from the stained iMonoMac derived from the six tested iPSC cell lines. IL-6 concentrations measured with an ELISA after the incubation of the iMonoMac derived from the male iPSC cell lines (c) or female iPSC cell lines (d) with WHO LPS (n=2 of biological repeats, mean \pm SD). (e) Bar chart comparing IL-6 secretion from (c) and (d) at WHO LPS concentration of 50 pg/mL(Student's t-test).(f) Bar chart evaluating the secretion of IL-6 from iMonoMac derived from the six different iPSC cell lines in comparison to MDM derived from four different donors. ns: not-significant, iMonoMac: iPSC derived macrophages, MDM: monocyte derived macrophages.