Electronic Supplementary Information (ESI)

Multiplexed End-point Microfluidic Chemotaxis Assay using Centrifugal Alignment

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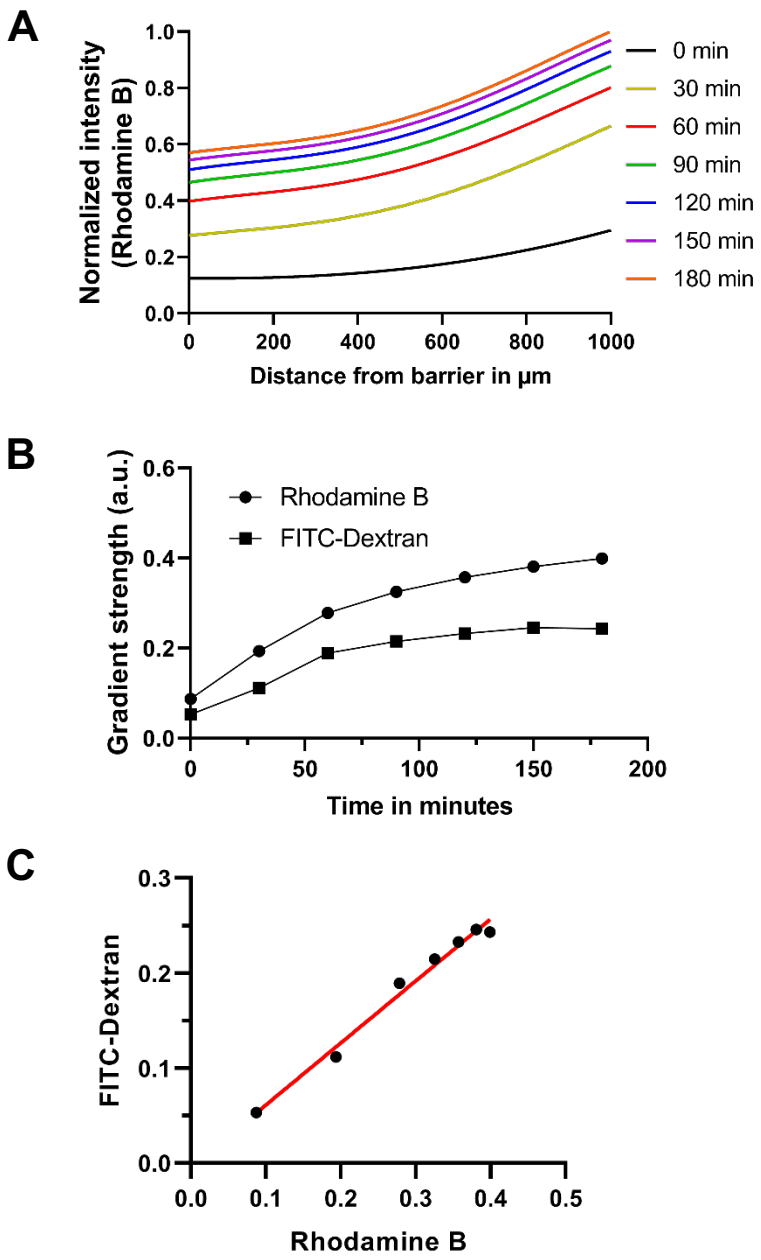

Figure S1. Experimental study of gradient formation in the design with the barrier feature. (A) The gradient profile was visualized using Rhodamine B, which has a similar molecular weight as fMLP. (B) The gradient strengths of Rhodamine B and FITC-Dextran measuring a function of time. (C) A regression line superimposed on the data from (B), showing a strong correlation between the gradient strength of Rhodamine B and fMLP-Dextran ($R^2 = 0.99$).

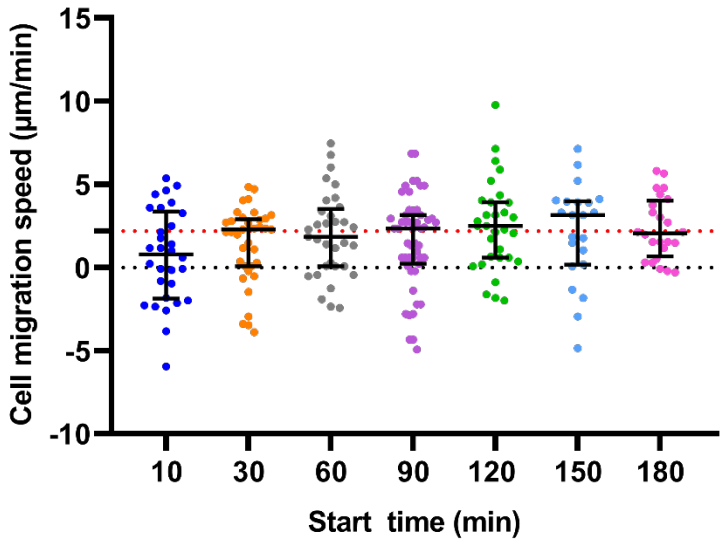

Figure S2. Average migration speed of neutrophils along the direction of microfluidic channels, measuring within 10 min after the start time. (N >30, error bars indicate median with interquartile range)

Supplementary video 1: Gradient formation using FITC-Dextran in the design with the barrier feature in 180 min.

Supplementary video 2: Human neutrophil migration in the presence of 100 nM fMLP gradient within 150 min.