

Microscale arrays for the profiling of start and stop signals coordinating human-neutrophil swarming

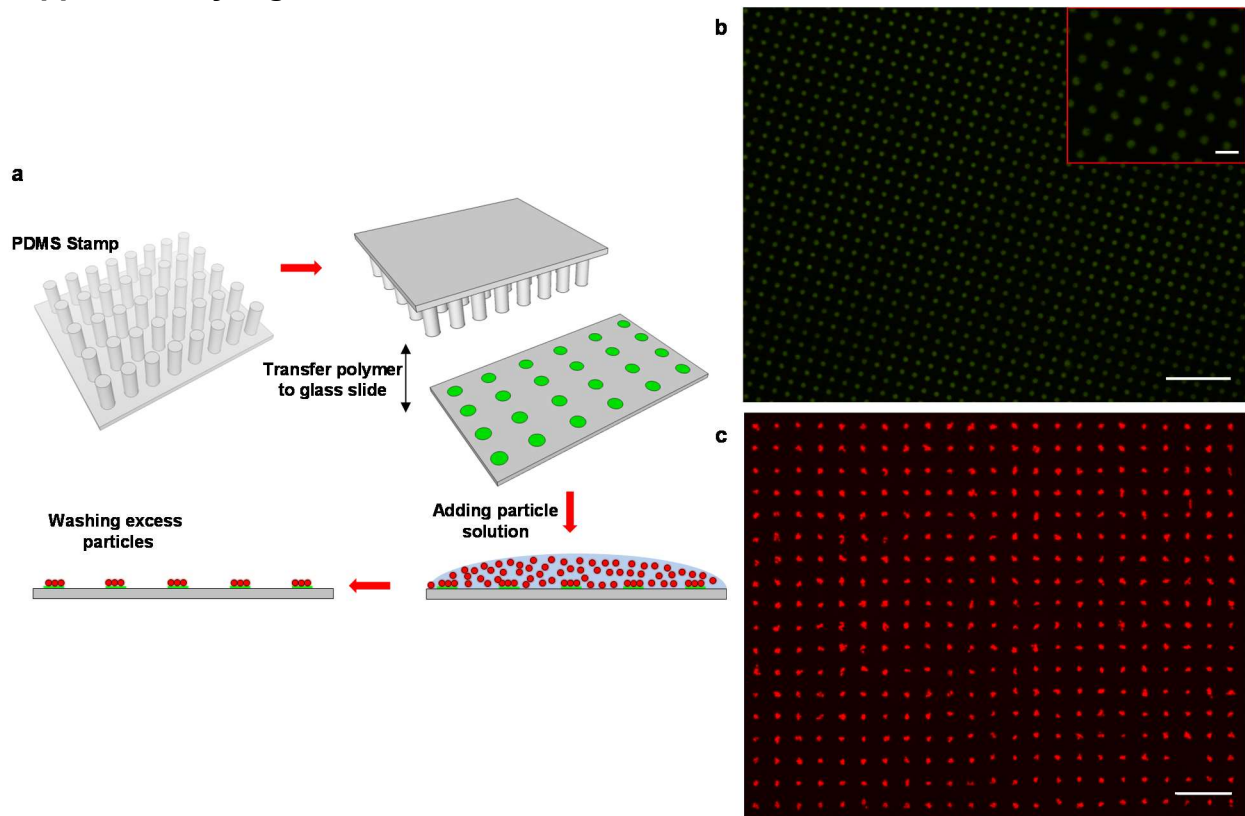
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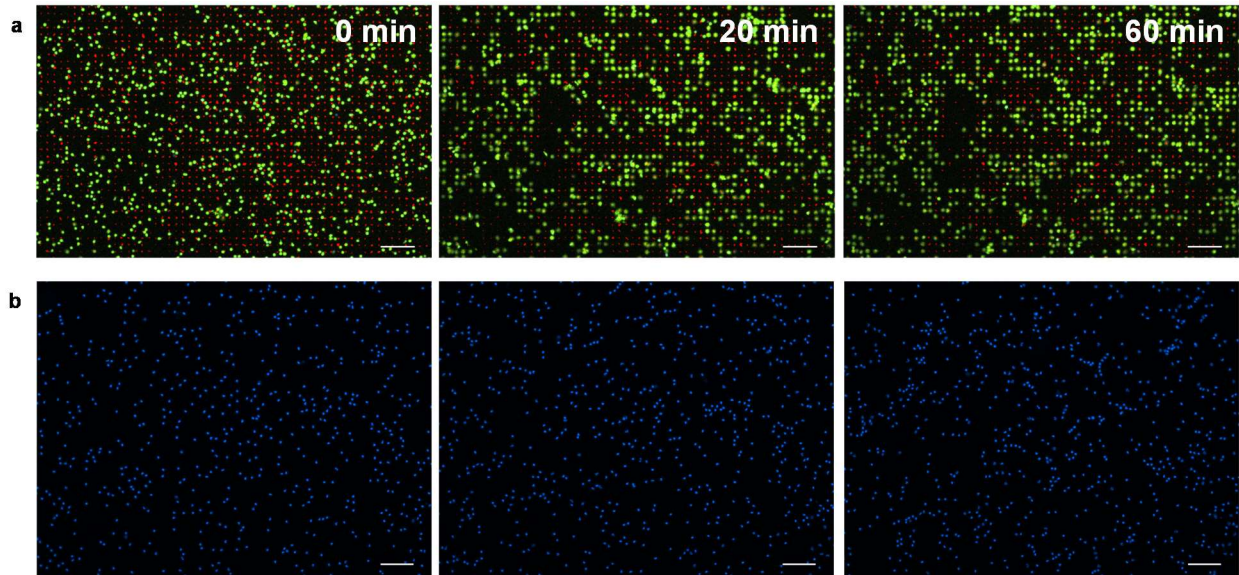
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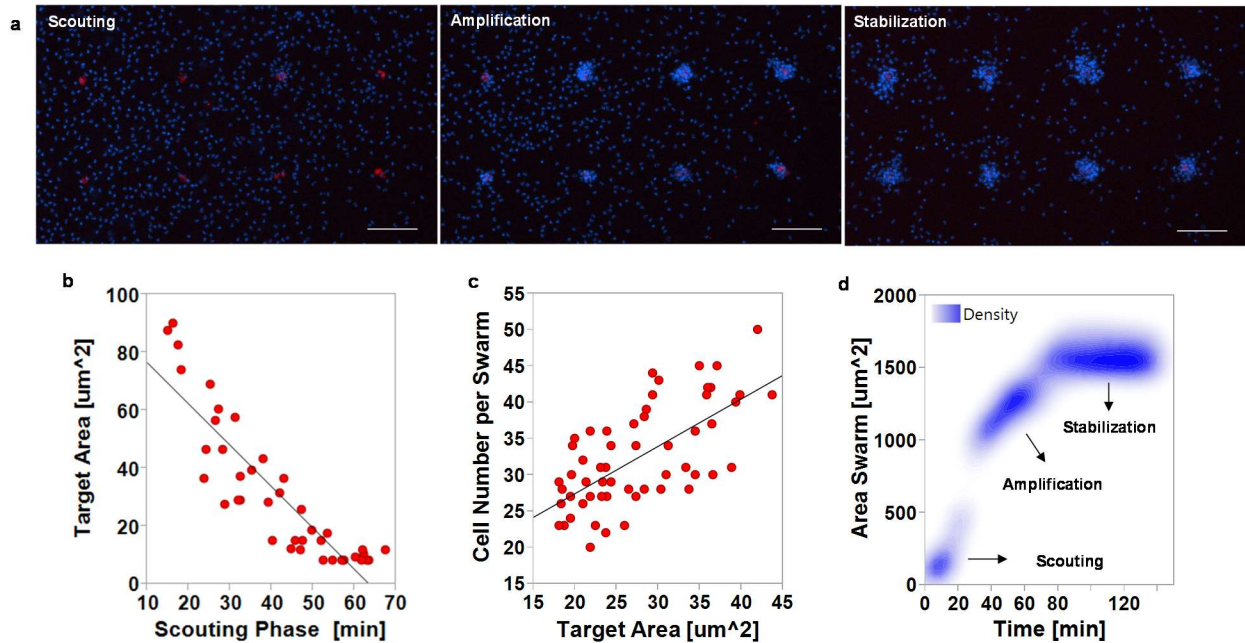
Supplementary Figures



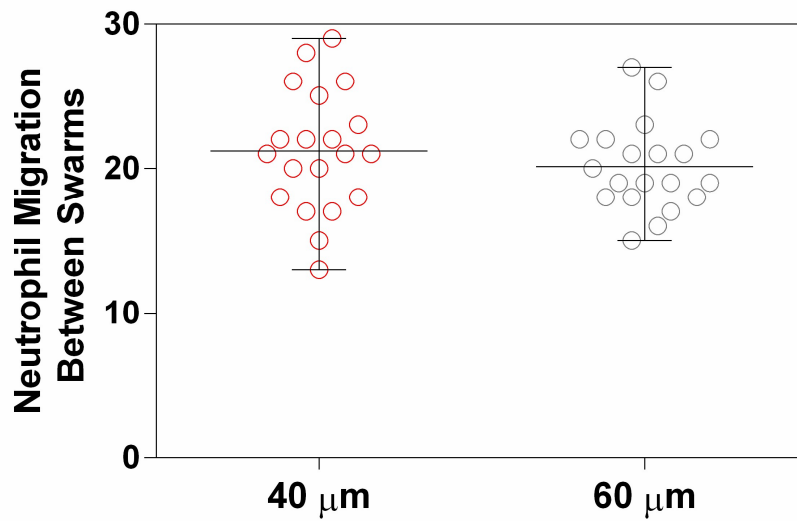
Supplementary Figure 1. Schematic of zymosan particle patterning. (a) Patterns were fabricated with 15 μm height PDMS pillars. The stamps were immersed in a ZETAG solution. After incubation, the pattern was transferred to a glass slide by applying pressure on the PDMS stamp. After drying, a filtered zymosan particle solution was added directly on top of the patterned glass slide and incubated for 10 min. The excess of particles was washed off thoroughly with water. (b) Fluorescence microscopy image of the ZETAG patterns on a glass slide. For imaging, fluorescein was added to the ZETAG solution used for stamping (scale bar 100 μm; insert, 20 μm). (c) Fluorescence microscopy image of an array of immobilized zymosan particles (red) on top of the ZETAG patterned layer (scale bar 100 μm).



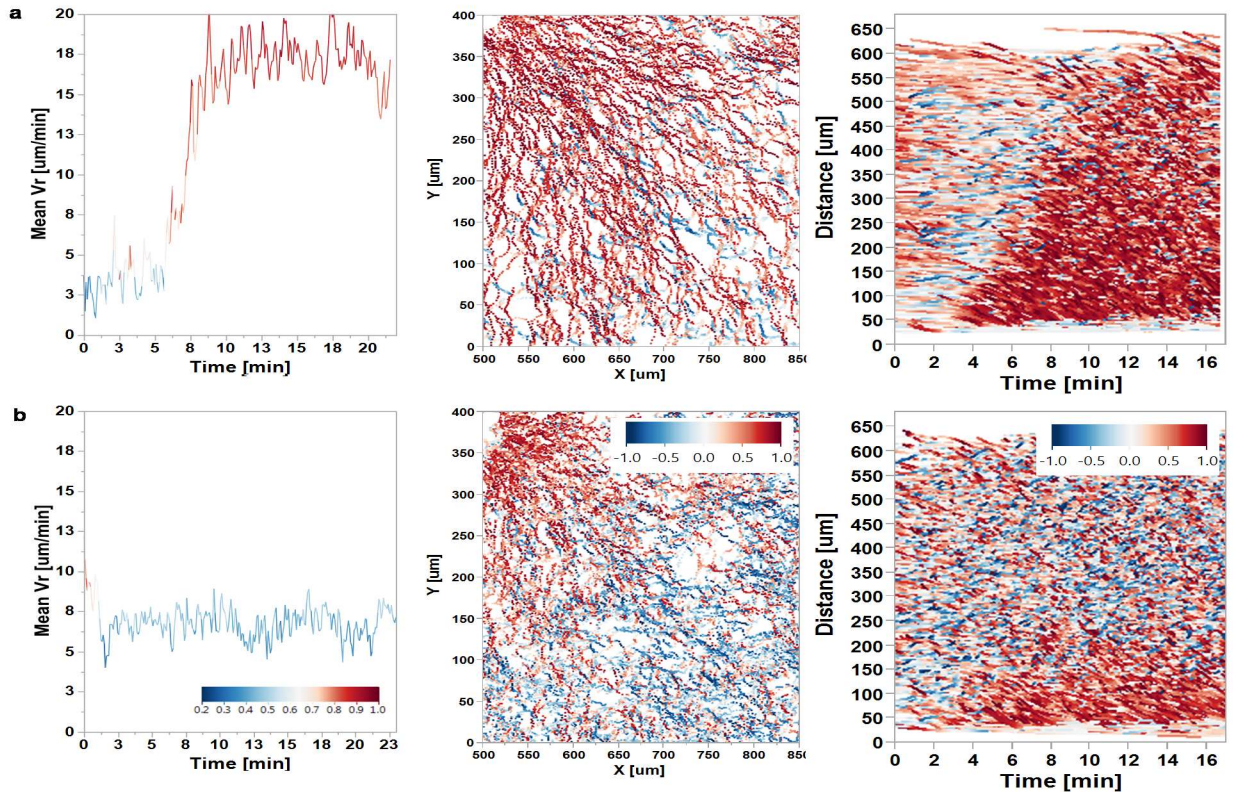
Supplementary Figure 2. Non-swarming neutrophil arrays. (a) When zymosan particles (red) are in small clusters (2-3 particles) or separated by 20 μm or less, no swarms form on top of the particles (non-swarming control). Neutrophils co-localize with the particle clusters, one neutrophil per cluster, and no additional neutrophils are attracted. Time-lapse fluorescence images of neutrophils colocalizing on particle arrays. Green fluorescence neutrophils patterned as single cells (scale bar 100 μm). (b) In the non-activated control, neutrophils retain a spherical shape and move randomly on a glass substrate (scale bar 100 μm).



Supplementary Figure 3. The three phases of neutrophil swarming. (a) An array of neutrophil swarms generated on the platform at 5, 15 and 30 minutes, during the phases of scouting, amplification, and stabilization, respectively (scale bar 100 μm). During the scouting phase, neutrophils (blue) find the particle clusters (red). During the amplification phase, surrounding neutrophils migrate towards the swarm. During the stabilization phase, equal numbers of neutrophils join and leave the swarm and the size of the swarms remains constant. (b) Inverse relationship between the scouting phase of neutrophil swarming and size of the particle cluster (cluster area - $R^2= 0.7916$). (c) The number of cells recruited on particle clusters of various size increases with cluster area ($R^2= 0.4347$). (d) Average swarm size and swarming stages for 100 swarms on the platform.



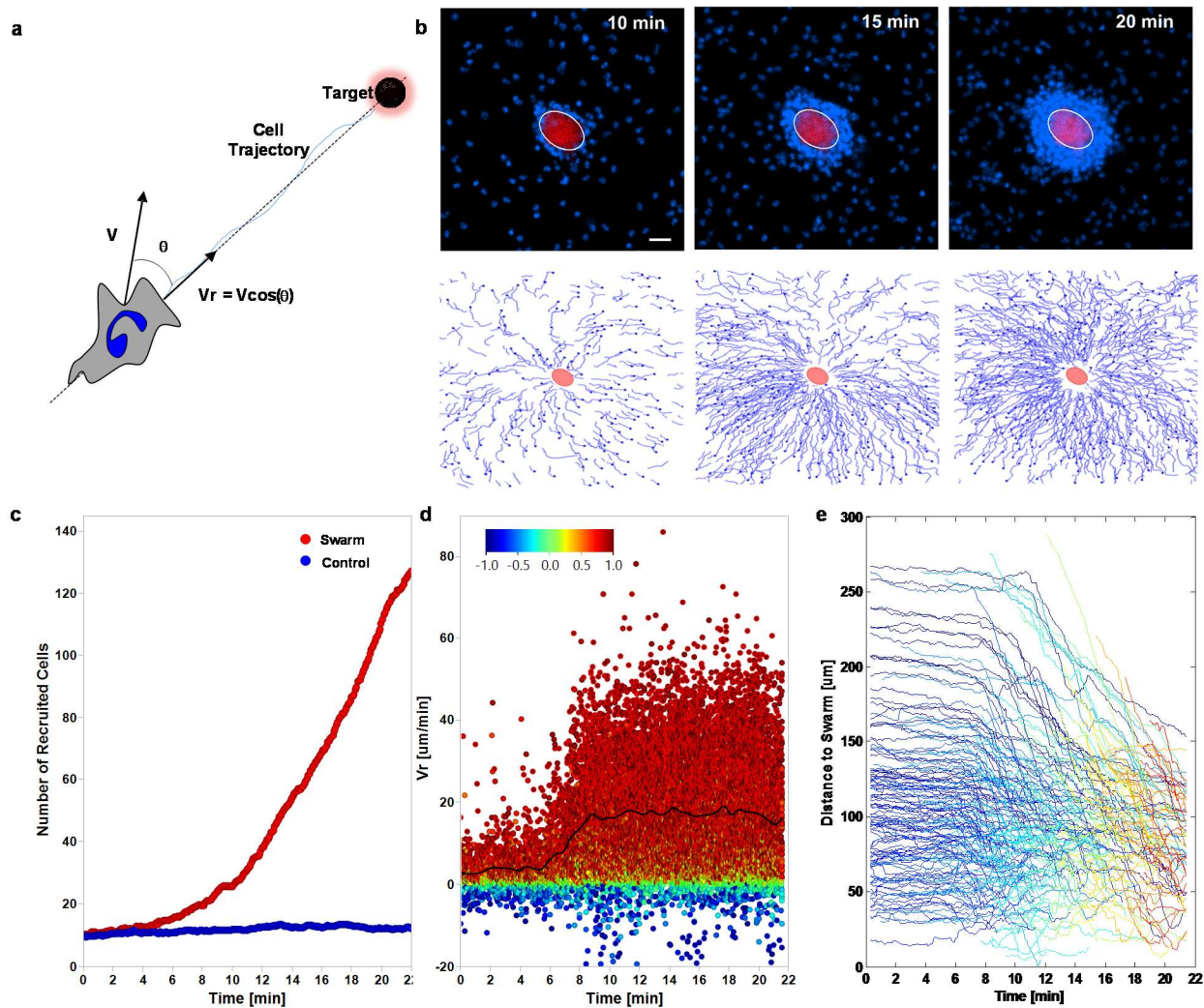
Supplementary Figure 4. Neutrophil migration between adjacent swarms. The number of neutrophils migrating between swarms formed around unequal zymosan-clusters pairs (areas A1 [50-60 μm^2] and A2 [35-45 μm^2]) is represented for clusters spaced at 40 and 60 μm . Each data point represents the number of neutrophils migrating in separate experiments, between unequal, adjacent zymosan-cluster pairs.



Supplementary Figure 5. Comparison of neutrophil dynamics during swarming.

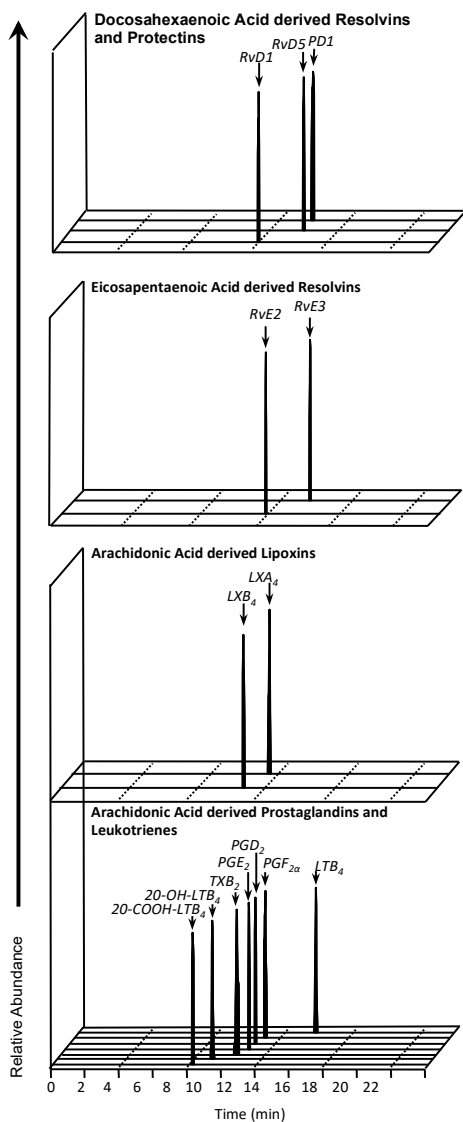
(a) Mean radial velocity (V_r) is plotted over time. The increase in V_r corresponds to higher CI towards the swarm. Transition in the velocity occurred around 10 min with neutrophils becoming highly chemotactic. Center panel, tracks of individual neutrophils during swarming. Only one-quarter of the field of view is shown. The particle cluster is located on the left corner. Right panel, the distances that neutrophils travel towards a swarm are plotted. Chemotactic migration can be distinguished with the high CI maintained over 450 μm of migration. (b) Mean V_r shows that neutrophils near the particle clusters are very chemotactic during the first 2 to 3 min. Although, then V_r remained almost unaltered. Center panel, tracks of individual neutrophils during swarming, in which neutrophils have been inhibited for LTB4 through blocking of BLT1 and BLT2 receptors. Right panel, the distances that inhibited neutrophils travel towards

a swarm are plotted. Chemotactic migration can be distinguished with the CI over 150 μm .

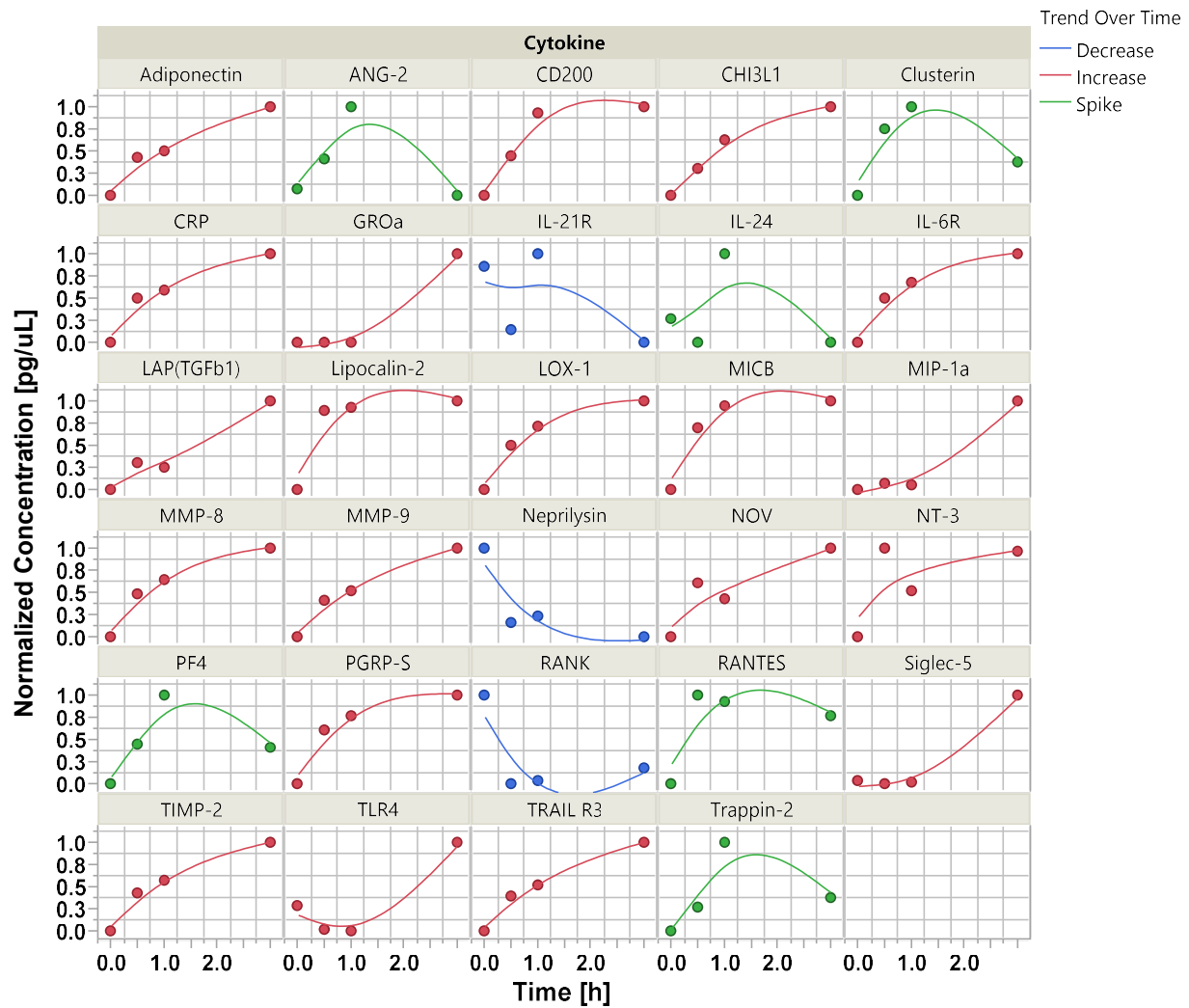


Supplementary Figure 6. Single neutrophil dynamics quantification for biophysical modeling. (a) Schematic representation of a neutrophil during chemotactic migration. **(b)** Fluorescence microscopy images of neutrophils recruited during swarming. The bottom panel shows the accumulation of the cells by increasing the number of tracks (blue lines) over time (scale bar 20 μm). **(c)** Number of recruited neutrophils during scouting and amplification phase. Non-activated controls represent non-stimulated neutrophils migrating randomly. **(d)** Instantaneous radial velocity of neutrophils during swarming. Color code represents the instantaneous CI of each cell. (-1) neutrophils are moving away from the target, (1) neutrophils are moving towards the

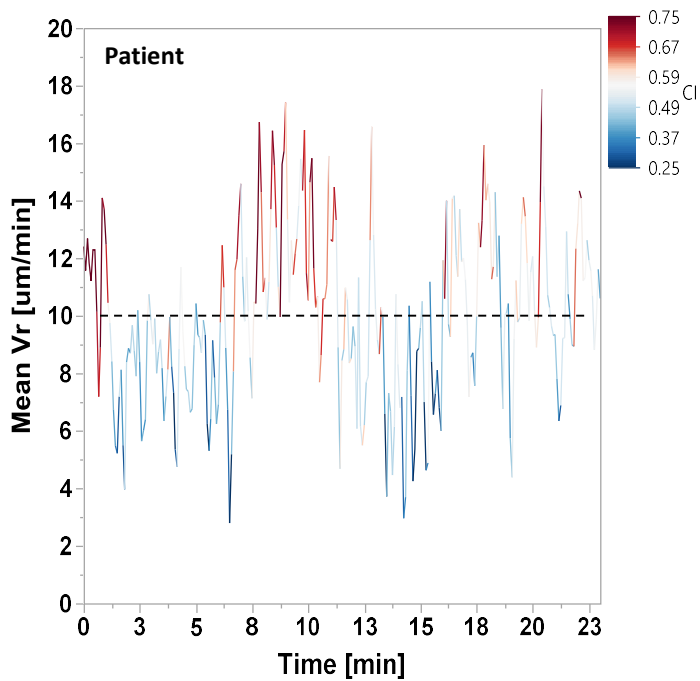
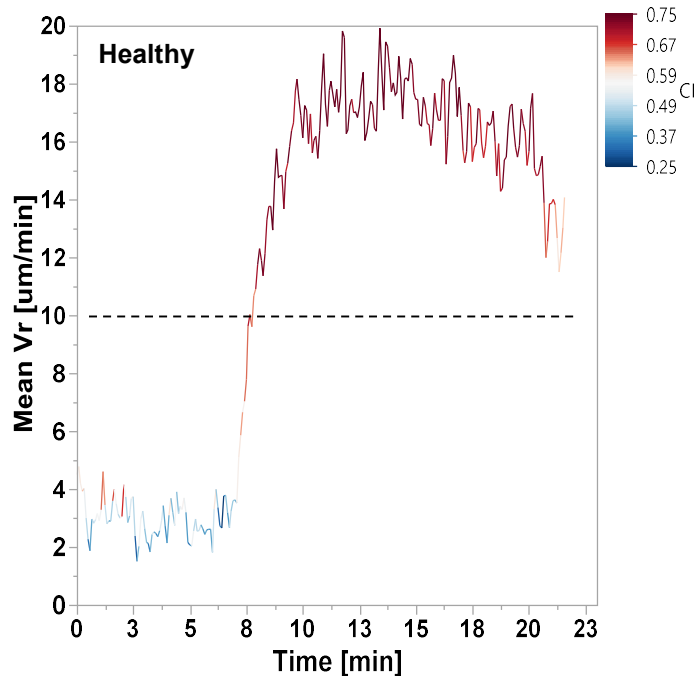
target. **(e)** Characterization of the distance traveled by neutrophils during chemotactic migration towards a swarm. Color code represents the time scale.



Supplementary Figure 7. Representative multiple reaction monitoring (MRM) chromatographs for lipids in the supernatant above neutrophil swarms. The lipid mediators are identified from the signature ion fragments (m/z) for each molecule monitoring the parent ion (Q1) and a characteristic daughter ion (Q3). A minimum of 6 diagnostic ions were employed for each identification. Calibration curves were determined using a mixture of synthetic lipid mediator standards obtained via total organic synthesis. The detection limit was ~ 0.1 pg for each lipid mediator.

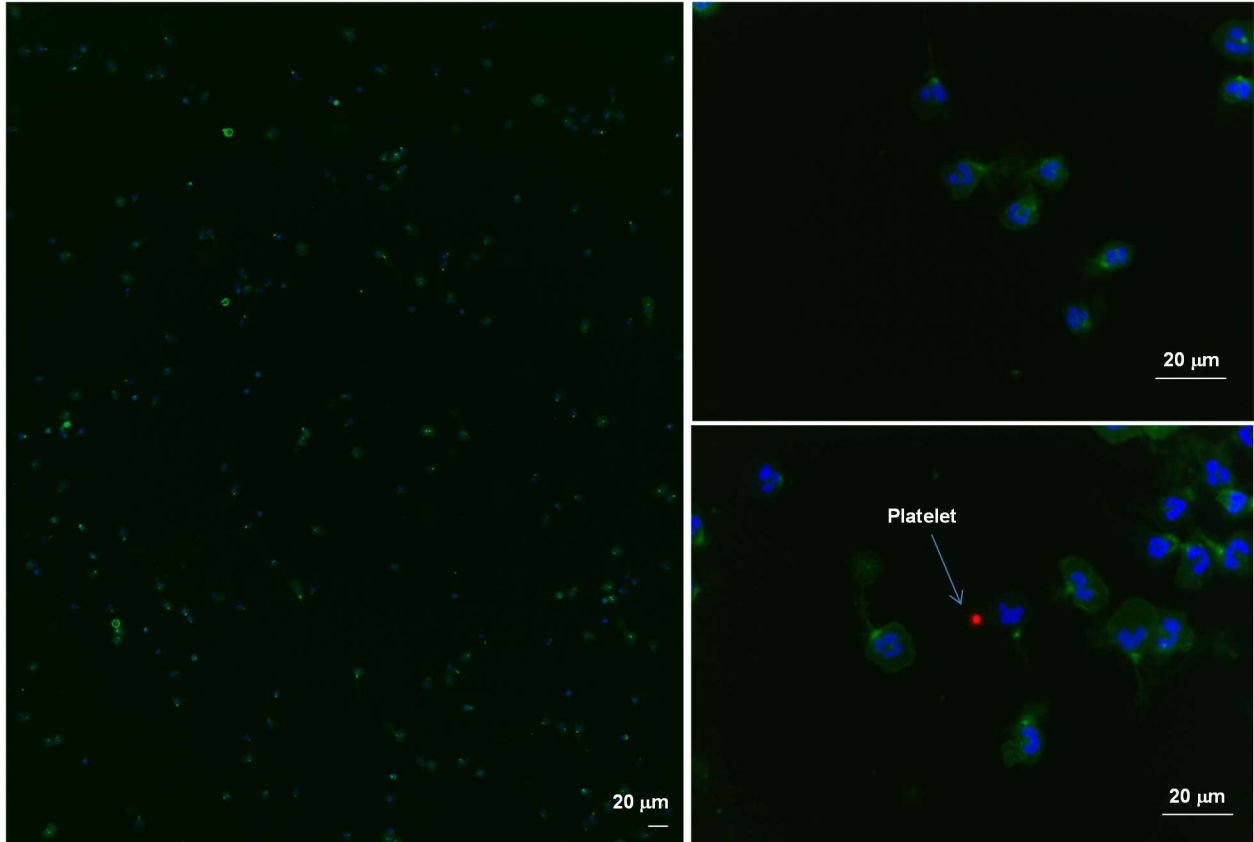


Supplementary Figure 8. Quantification of cytokine secretion dynamics of neutrophils during swarming. Cytokines were also identified during phagocytosis and were statistically significant from non-stimulated neutrophils ($p < 0.05$).



Supplementary Figure 9. Comparison of neutrophil migration profiles from a healthy individual and trauma patients. Radial velocity (V_r) of neutrophil from healthy individuals shows a sharp transition from slow to fast at the initiation of swarming,

consistent with the increase in directionality index. Radial velocity shows wide swings around an intermediate velocity during swarming of neutrophils from trauma patients.



Supplementary Figure 10. Stained neutrophils after isolation. Neutrophils were stained for CD66b (in green) and platelets for CD61 (Red), the nuclear stain was performed with Hoechst. Less than 1 % of isolated neutrophils carried platelets.

Supplementary Tables

Supplementary Table 1. Demographic information for the healthy donors used for the measurements reported in Figure 1f.

Donor	Age	Sex	Scouting phase [min]	Growth phase [min]	Plateau Size [μm^2]
A	28	M	8 ± 3	53 ± 7	2256 ± 121
B	24	M	39 ± 6	70 ± 6	1639 ± 102
C	35	M	74 ± 5	50 ± 5	1769 ± 97
D	29	F	10 ± 6	47 ± 2	1965 ± 74
E	25	F	7 ± 4	53 ± 8	1634 ± 134
F	35	M	13 ± 6	49 ± 6	1732 ± 86
G	26	F	10 ± 3	61 ± 3	1812 ± 97
H	35	M	9 ± 4	45 ± 5	1034 ± 113

Supplementary Table 2. Lipid mediators identified during neutrophil swarming. Results are shown in pg per 500 μ L supernatant solution.

DHA Bioactive Metabolome	Q1	Q3	30 min	60 min	180 min	Control
RvD1	375	121	0.1 \pm 0.0	0.3 \pm 0.1	0.1 \pm 0.1	0.1 \pm 0.1
RvD2	375	141	*	*	*	*
RvD3	375	147	*	*	*	*
RvD4	375	101	*	*	*	*
RvD5	359	199	0.1 \pm 0.0	0.1 \pm 0.0	0.1 \pm 0.0	0.1 \pm 0.0
RvD6	359	101	*	*	*	*
AT-RvD1	375	121	*	*	*	*
AT-RvD3	375	147	*	*	*	*
PD1	359	153	0.5 \pm 0.1	0.5 \pm 0.1	0.6 \pm 0.0	0.7 \pm 0.0
AT-PD1	359	153	*	*	*	*
10S,17S-diHDHA	359	153	*	*	*	*
MaR1	359	250	*	*	*	*
EPA Bioactive Metabolome						
RvE1	349	195	*	*	*	*
RvE2	333	253	4.5 \pm 0.3	5.3 \pm 1.4	5.1 \pm 0.7	4.1 \pm 0.0
RvE3	333	245	2.5 \pm 0.2	2.2 \pm 0.8	2.8 \pm 0.9	0.0 \pm 0.0
AA Bioactive Metabolome						
LXA ₄	351	115	0.4 \pm 0.0	0.6 \pm 0.1	11.4 \pm 5.3	0.1 \pm 0.0
LXB ₄	351	251	0.2 \pm 0.0	0.2 \pm 0.0	0.3 \pm 0.1	0.1 \pm 0.0
5S,15S-diHETE	335	235	1.9 \pm 0.6	1.8 \pm 0.8	2.5 \pm 1.0	1.0 \pm 0.0
AT-LXA ₄	351	115	*	*	*	*
AT-LXB ₄	351	251	*	*	*	*
LTB ₄	335	195	3.2 \pm 1.9	4.4 \pm 1.0	2.8 \pm 0.8	0.1 \pm 0.0
20-OH-LTB ₄	351	195	4.0 \pm 2.8	9.9 \pm 1.9	13.7 \pm 2.3	*
20-COOH-LTB ₄	365	195	5.6 \pm 0.2	4.1 \pm 0.8	3.2 \pm 0.6	3.5 \pm 0.0
PGD ₂	351	189	2.8 \pm 1.1	2.5 \pm 0.9	1.7 \pm 0.7	0.3 \pm 0.0
PGE ₂	351	189	2.5 \pm 1.1	2.5 \pm 1.2	2.6 \pm 0.9	0.2 \pm 0.0
PGF _{2α}	353	193	0.3 \pm 0.1	0.7 \pm 0.1	0.3 \pm 0.0	0.1 \pm 0.0
TXB ₂	369	169	77.9 \pm 62.3	79.6 \pm 64.5	69.8 \pm 55.9	12.4 \pm 0.0

Supernatants from neutrophil incubations were collected for metabololipidomics at the indicated intervals. Mediators were identified and quantified using LC-MS-MS-based lipid mediator metabololipidomics. Mediators were quantified using multiple reaction monitoring

where Q1: M-H (parent ion) and Q3 (daughter ion): diagnostic ion in the MS-MS. The detection limit was ~ 0.1 pg; * denotes below limits. Results are mean \pm SEM 4 donors per interval.

Supplementary Table 3. A complete list of cytokine tested in microarray ELISA. Tables include the limit of detection, confidence range, maximum values for quantitative measurements, a summary of measurements relative to the limit of detection and maximum values.

Group 1

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
6Ckine	173.4	520.1 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
Axl	10.1	30.4 - 4000	4,000	0.0	0.0	100.0	0.0	0.0	0.0
BTC	94.8	284.3 - 20000	20,000	0.0	0.0	100.0	0.0	0.0	0.0
CCL28	116.6	349.8 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
CTACK	41.3	124 - 5555	16,667	12.7	0.0	100.0	0.0	0.0	0.0
CXCL16	15.8	47.4 - 2222	6,667	7.8	0.0	100.0	0.0	0.0	0.0
ENA-78	32.4	97.1 - 10000	10,000	3.3	0.0	100.0	0.0	0.0	0.0
Eotaxin-3	42.8	128.4 - 6666	20,000	9.5	0.0	100.0	0.0	0.0	0.0
GCP-2	10.6	31.8 - 10000	10,000	17.1	0.0	92.3	7.7	0.0	0.0
GRO	4.9	14.8 - 1000	1,000	0.6	0.0	100.0	0.0	0.0	0.0
HCC-1	3.4	10.3 - 1333	4,000	1.7	0.3	100.0	0.0	0.0	0.0
HCC-4	20.9	62.7 - 3333	10,000	8.1	0.0	100.0	0.0	0.0	0.0
IL-9	651.5	1954.4 - 200000	200,000	455.3	0.0	100.0	0.0	0.0	0.0
IL-17F	70.3	210.8 - 100000	100,000	3.8	0.0	100.0	0.0	0.0	0.0
IL-18 BPa	132.9	398.8 - 60000	60,000	9.4	0.0	100.0	0.0	0.0	0.0
IL-28A	12.1	36.4 - 10000	10,000	0.6	0.0	100.0	0.0	0.0	0.0
IL-29	393.5	1180.4 - 100000	100,000	280.5	0.0	100.0	0.0	0.0	0.0
IL-31	95.9	287.8 - 40000	40,000	182.3	0.0	76.9	23.1	0.0	0.0
IP-10	9.4	28.3 - 3333	10,000	2.3	0.0	100.0	0.0	0.0	0.0
I-TAC	19.2	57.5 - 3333	10,000	11.8	0.0	100.0	0.0	0.0	0.0
LIF	37.8	113.3 - 13000	13,000	14.1	0.0	100.0	0.0	0.0	0.0
LIGHT	18.3	54.9 - 10000	10,000	0.0	0.0	100.0	0.0	0.0	0.0
Lymphotactin	113.7	341.2 - 11111	33,333	46.4	0.0	100.0	0.0	0.0	0.0
MCP-2	1.4	4.3 - 222	667	0.3	0.0	100.0	0.0	0.0	0.0
MCP-3	3.5	10.4 - 444	1,333	1.1	0.0	100.0	0.0	0.0	0.0
MCP-4	5.4	16.1 - 370	1,111	0.2	0.0	100.0	0.0	0.0	0.0
MDC	5.5	16.4 - 1111	3,333	0.1	0.0	100.0	0.0	0.0	0.0
MIF	8.3	24.9 - 4000	4,000	26.9	8.5	0.0	92.3	7.7	0.0
MIP-3a	3.4	10.2 - 4000	4,000	0.3	0.0	100.0	0.0	0.0	0.0
MIP-3b	31.0	92.9 - 2222	6,667	0.0	0.0	100.0	0.0	0.0	0.0
MPIF-1	32.8	98.3 - 10000	10,000	44.5	0.0	84.6	15.4	0.0	0.0
MSP	119.3	357.9 - 33333	100,000	27.0	0.0	100.0	0.0	0.0	0.0
NAP-2	4.0	11.9 - 148	444	154.8	0.0	7.7	0.0	92.3	0.0
OPN	161.4	484.1 - 100000	100,000	695.9	0.0	84.6	0.0	15.4	0.0
PARC	12.8	38.4 - 4000	4,000	5.8	0.0	100.0	0.0	0.0	0.0
PF4	177.6	532.8 - 11111	33,333	13,227.2	0.0	7.7	7.7	84.6	0.0
SDF-1a	7.4	22.3 - 1111	3,333	0.5	0.0	100.0	0.0	0.0	0.0

TARC	7.7	23.1 - 1111	3,333	1.4	0.0	100.0	0.0	0.0	0.0
TECK	220.8	662.4 - 33333	100,000	194.3	0.0	100.0	0.0	0.0	0.0
TSLP	8.3	24.9 - 1111	3,333	2.6	0.8	100.0	0.0	0.0	0.0

Group 2

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
Activin A	110.8	332.3 - 11111	33,333	168.0	13.8	15.4	84.6	0.0	0.0
AgRP	21.7	65 - 1111	3,333	4.3	0.0	100.0	0.0	0.0	0.0
Angiogenin	1.1	3.4 - 666	2,000	4.8	0.0	84.6	7.7	7.7	0.0
ANG-1	27.3	81.8 - 40000	40,000	27.4	1.3	92.3	7.7	0.0	0.0
Angiostatin	2851.8	8555.5 - 1000000	1,000,000	1,097.7	0.0	100.0	0.0	0.0	0.0
Cathepsin S	8.7	26 - 10000	10,000	139.0	6.0	7.7	30.8	61.5	0.0
CD40	7.8	23.5 - 10000	10,000	5.4	0.0	100.0	0.0	0.0	0.0
Cripto-1	35.0	105 - 10000	10,000	3.9	0.0	100.0	0.0	0.0	0.0
DAN	39.6	118.9 - 40000	40,000	17.6	0.0	100.0	0.0	0.0	0.0
DKK-1	198.1	594.2 - 80000	80,000	165.0	0.0	100.0	0.0	0.0	0.0
E-Cadherin	373.6	1120.7 - 80000	80,000	12.0	0.0	100.0	0.0	0.0	0.0
EpCAM	10.5	31.4 - 20000	20,000	0.4	0.0	100.0	0.0	0.0	0.0
FAS L	1.8	5.4 - 2000	2,000	5.0	0.0	92.3	7.7	0.0	0.0
Fcg RIIBC	31.2	93.7 - 10000	10,000	52.8	0.0	92.3	7.7	0.0	0.0
Follistatin	43.2	129.6 - 13333	40,000	2.7	0.0	100.0	0.0	0.0	0.0
Galectin-7	217.5	652.4 - 100000	100,000	388.1	84.1	76.9	23.1	0.0	0.0
ICAM-2	58.5	175.6 - 100000	100,000	671.2	302.8	0.0	0.0	100.0	0.0
IL-13 R1	53.1	159.2 - 10000	10,000	5.9	0.0	100.0	0.0	0.0	0.0
IL-13 R2	92.8	278.5 - 20000	20,000	14.6	0.0	100.0	0.0	0.0	0.0
IL-17B	32.8	98.3 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
IL-2 Ra	26.8	80.3 - 10000	10,000	2.6	0.0	100.0	0.0	0.0	0.0
IL-2 Rb	234.6	703.7 - 33333	100,000	54.0	0.0	100.0	0.0	0.0	0.0
IL-23	148.9	446.6 - 40000	40,000	84.0	0.0	100.0	0.0	0.0	0.0
LAP(TGFB1)	7.0	20.9 - 4000	4,000	14.5	2.2	61.5	38.5	0.0	0.0
NrCAM	29.2	87.6 - 20000	20,000	1.9	0.0	100.0	0.0	0.0	0.0
PAI-1	48.3	144.9 - 40000	40,000	165.1	0.0	53.8	38.5	7.7	0.0
PDGF-AB	10.3	30.9 - 10000	10,000	11.2	0.0	61.5	38.5	0.0	0.0
Resistin	31.1	93.3 - 20000	20,000	111.9	0.0	30.8	30.8	38.5	0.0
SDF-1b	26.6	79.7 - 4444	13,333	3.8	0.0	100.0	0.0	0.0	0.0
gp130	101.0	303.1 - 80000	80,000	213.8	0.0	84.6	15.4	0.0	0.0
Shh-N	38.2	114.7 - 40000	40,000	3.9	0.0	100.0	0.0	0.0	0.0
Siglec-5	29.8	89.5 - 10000	10,000	755.6	0.0	46.2	15.4	38.5	0.0
ST2	10.6	31.7 - 4000	4,000	7.8	0.0	100.0	0.0	0.0	0.0
TGFB2	35.2	105.7 - 4444	13,333	12.1	0.0	100.0	0.0	0.0	0.0
Tie-2	21.0	62.9 - 10000	10,000	4.5	0.0	100.0	0.0	0.0	0.0
TPO	218.0	653.9 - 66666	200,000	171.9	0.0	100.0	0.0	0.0	0.0
TRAIL R4	22.8	68.5 - 8000	8,000	0.0	0.0	100.0	0.0	0.0	0.0
TREM-1	42.2	126.7 - 20000	20,000	1.6	0.0	100.0	0.0	0.0	0.0
VEGF-C	38.2	114.7 - 20000	20,000	22.5	0.0	100.0	0.0	0.0	0.0
VEGF R1	89.5	268.6 - 40000	40,000	119.1	15.0	61.5	38.5	0.0	0.0

Group 3

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
Adiponectin	168.0	503.9 - 100000	100,000	258.7	0.0	84.6	15.4	0.0	0.0
Adipsin	38.4	115.1 - 20000	20,000	4,418.0	0.0	53.8	15.4	30.8	0.0
AFP	41.6	124.8 - 10000	10,000	15.2	0.0	100.0	0.0	0.0	0.0
ANGPTL4	122.1	366.2 - 400000	400,000	54.7	0.0	100.0	0.0	0.0	0.0
B2M	4.5	13.4 - 370	1,111	168.6	60.7	0.0	0.0	100.0	0.0
BCAM	88.8	266.4 - 40000	40,000	55.3	0.0	100.0	0.0	0.0	0.0
CA125	206.5	619.5 - 100000	100,000	218.0	0.0	92.3	7.7	0.0	0.0
CA15-3	17.1	51.2 - 10000	30,000	0.5	0.0	100.0	0.0	0.0	0.0
CEA	53.3	159.8 - 20000	20,000	463.1	19.7	30.8	23.1	46.2	0.0
CRP	15.9	47.8 - 10000	10,000	123.7	0.0	46.2	23.1	30.8	0.0
ErbB2	30.9	92.7 - 10000	10,000	2.6	0.0	100.0	0.0	0.0	0.0
Ferritin	6106.2	18318.7 - 800000	800,000	43,387.3	0.0	23.1	38.5	38.5	0.0
FSH	22.1	66.2 - 10000	10,000	15.9	0.0	100.0	0.0	0.0	0.0
GROa	92.4	277.3 - 33333	100,000	9.9	0.0	100.0	0.0	0.0	0.0
hCGb	74.2	222.7 - 20000	20,000	0.0	0.0	100.0	0.0	0.0	0.0
IGF-1R	78.4	235.3 - 100000	100,000	77.0	0.0	100.0	0.0	0.0	0.0
IL-1 RII	73.2	219.5 - 20000	20,000	17.3	0.0	100.0	0.0	0.0	0.0
IL-3	11.5	34.4 - 10000	10,000	31.7	0.0	30.8	69.2	0.0	0.0
IL-18 Rb	21.1	63.3 - 20000	20,000	1.8	0.0	100.0	0.0	0.0	0.0
IL-21	340.6	1021.7 - 100000	100,000	2,817.7	0.0	30.8	7.7	61.5	0.0
Leptin	24.1	72.4 - 13333	40,000	17.6	0.0	100.0	0.0	0.0	0.0
MMP-1	51.5	154.5 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
MMP-2	481.6	1444.8 - 100000	100,000	6,929.9	0.0	38.5	23.1	38.5	0.0
MMP-3	135.9	407.7 - 13333	40,000	48.0	0.0	100.0	0.0	0.0	0.0
MMP-8	18.9	56.7 - 10000	10,000	6,501.1	2.4	7.7	15.4	76.9	0.0
MMP-9	24.8	74.5 - 20000	20,000	113,144.9	0.0	7.7	0.0	30.8	61.5
MMP-10	5.2	15.7 - 10000	10,000	5.3	0.0	92.3	7.7	0.0	0.0
MMP-13	5.5	16.6 - 3333	10,000	2.2	0.0	100.0	0.0	0.0	0.0
NCAM-1	322.0	966.1 - 66666	200,000	447.8	0.0	92.3	7.7	0.0	0.0
Nidogen-1	59.6	178.8 - 20000	20,000	699.9	0.0	46.2	15.4	38.5	0.0
NSE	95.5	286.6 - 33333	100,000	76.3	0.0	100.0	0.0	0.0	0.0
OSM	25.1	75.2 - 10000	10,000	58.4	0.0	92.3	7.7	0.0	0.0
Procalcitonin	647.0	1941.1 - 100000	100,000	4,012.7	305.1	7.7	53.8	38.5	0.0
Prolactin	853.9	2561.7 - 400000	400,000	2,003.6	0.0	92.3	7.7	0.0	0.0
PSA-free	78.4	235.3 - 20000	20,000	0.4	0.0	100.0	0.0	0.0	0.0
Siglec-9	80.5	241.4 - 40000	40,000	43.4	0.0	100.0	0.0	0.0	0.0
TACE	95.3	285.9 - 100000	100,000	484.5	0.0	46.2	30.8	23.1	0.0
Thyroglobulin	845.3	2535.9 - 100000	100,000	3,332.7	0.0	61.5	30.8	7.7	0.0
TIMP-4	15.9	47.6 - 6666	20,000	4.7	0.0	100.0	0.0	0.0	0.0
TSH	41.1	123.4 - 20000	20,000	256.1	0.0	30.8	30.8	38.5	0.0

Group 4

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
2B4	22.6	67.9 - 10000	10,000	3.9	0.0	100.0	0.0	0.0	0.0
ADAM9	44.2	132.7 - 33333	100,000	1.4	0.0	100.0	0.0	0.0	0.0
ANG-2	44.5	133.6 - 20000	20,000	6.2	0.2	100.0	0.0	0.0	0.0
APRIL	774.9	2324.8 - 200000	200,000	7,036.4	0.0	23.1	23.1	53.8	0.0
BMP-2	56.0	168.1 - 33333	100,000	18.5	0.9	100.0	0.0	0.0	0.0
BMP-9	8.9	26.8 - 4000	4,000	1.3	0.0	100.0	0.0	0.0	0.0
C5a	12.3	37 - 10000	10,000	22.3	1.0	53.8	46.2	0.0	0.0
Cathepsin L	19.3	58 - 10000	10,000	8.5	0.0	100.0	0.0	0.0	0.0
CD200	116.2	348.5 - 100000	100,000	82.9	0.0	100.0	0.0	0.0	0.0
CD97	239.4	718.2 - 100000	100,000	577.4	62.4	69.2	30.8	0.0	0.0
Chemerin	521.7	1565 - 22222	66,667	883.8	56.5	61.5	38.5	0.0	0.0
DcR3	545.2	1635.7 - 66666	200,000	489.5	0.0	100.0	0.0	0.0	0.0
FABP2	63.6	190.7 - 100000	100,000	56.9	0.0	100.0	0.0	0.0	0.0
FAP	15.2	45.7 - 20000	20,000	40.2	3.0	38.5	61.5	0.0	0.0
FGF-19	76.5	229.6 - 20000	20,000	167.4	0.0	92.3	7.7	0.0	0.0
Galectin-3	12.8	38.4 - 4000	4,000	106.2	0.0	69.2	7.7	23.1	0.0
HGF R	10.2	30.5 - 4000	4,000	30.0	0.2	69.2	30.8	0.0	0.0
IFNab R2	692.8	2078.3 - 100000	100,000	415.7	0.0	100.0	0.0	0.0	0.0
IGF-2	133.4	400.2 - 100000	100,000	119.9	0.0	100.0	0.0	0.0	0.0
IGF-2R	84.8	254.5 - 20000	20,000	124.8	0.0	76.9	23.1	0.0	0.0
IL-1 R6	488.7	1466 - 100000	100,000	369.9	0.0	100.0	0.0	0.0	0.0
IL-24	82.6	247.9 - 33333	100,000	9.5	0.0	100.0	0.0	0.0	0.0
IL-33	17.5	52.6 - 10000	10,000	1.6	0.0	100.0	0.0	0.0	0.0
Kallikrein 14	7.6	22.7 - 4000	4,000	1.4	0.0	100.0	0.0	0.0	0.0
Legumain	24.1	72.3 - 10000	10,000	17.2	0.0	100.0	0.0	0.0	0.0
LOX-1	3.9	11.8 - 2000	2,000	912.0	1.8	15.4	7.7	76.9	0.0
MBL	1.2	3.6 - 1000	1,000	7.6	0.0	38.5	53.8	7.7	0.0
Neprilysin	37.2	111.6 - 20000	20,000	9.1	0.0	100.0	0.0	0.0	0.0
Notch-1	10.7	32.2 - 4000	4,000	9.3	0.0	100.0	0.0	0.0	0.0
NOV	11.6	34.7 - 4000	4,000	33.7	8.3	23.1	76.9	0.0	0.0
Osteoactivin	18.4	55.3 - 10000	10,000	18.9	8.2	84.6	15.4	0.0	0.0
PD-1	13.8	41.3 - 4000	4,000	18.3	0.0	61.5	38.5	0.0	0.0
PGRP-S	1.2	3.6 - 1000	1,000	2,162.4	1.6	0.0	7.7	38.5	53.8
Serpin A4	14.8	44.4 - 10000	10,000	1,984.3	1,080.5	0.0	0.0	100.0	0.0
sFRP-3	315.3	945.9 - 100000	100,000	580.8	0.0	46.2	53.8	0.0	0.0
Thrombomodulin	90.1	270.2 - 33333	100,000	111.3	1.0	84.6	15.4	0.0	0.0
TLR2	39.9	119.7 - 20000	20,000	25.4	0.0	100.0	0.0	0.0	0.0
TRAIL R1	52.0	156 - 10000	10,000	38.6	0.0	100.0	0.0	0.0	0.0
Transferrin	94.5	283.4 - 11111	33,333	3.7	0.9	100.0	0.0	0.0	0.0
WIF-1	47.9	143.6 - 20000	20,000	50.1	0.8	92.3	7.7	0.0	0.0

Group 5

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
ACE-2	656.0	1968.1 - 400000	400,000	0.0	0.0	100.0	0.0	0.0	0.0
Albumin	165.4	496.1 - 20000	20,000	10,723.4	7,021.7	0.0	0.0	100.0	0.0
AMICA	34.5	103.4 - 20000	20,000	581.5	0.0	76.9	0.0	23.1	0.0
ANG-4	30.3	90.9 - 20000	20,000	5.5	0.0	100.0	0.0	0.0	0.0
BAFF	8.7	26 - 10000	10,000	2.4	0.0	100.0	0.0	0.0	0.0
CA19-9	553.2	1659.7 - 100000	100,000	3,428.5	186.4	53.8	30.8	15.4	0.0
CD163	176.2	528.5 - 200000	200,000	0.0	0.0	100.0	0.0	0.0	0.0
Clusterin	7.2	21.6 - 10000	10,000	172.2	0.0	15.4	15.4	69.2	0.0
CRTAM	4.1	12.2 - 4000	4,000	30.0	0.0	84.6	7.7	7.7	0.0
CXCL14	85.5	256.5 - 33333	100,000	138.4	0.0	84.6	15.4	0.0	0.0
Cystatin C	55.1	165.4 - 11111	33,333	5.1	0.0	100.0	0.0	0.0	0.0
Decorin	2.1	6.3 - 2000	2,000	36.6	0.0	61.5	15.4	23.1	0.0
Dkk-3	45.8	137.4 - 11111	33,333	0.2	0.0	100.0	0.0	0.0	0.0
DLL1	24.2	72.6 - 20000	20,000	9.2	0.0	100.0	0.0	0.0	0.0
Fetuin A	401.2	1203.5 - 100000	100,000	242,239.6	190,166.9	0.0	0.0	0.0	100.0
aFGF	297.0	891 - 22222	66,667	0.0	0.0	100.0	0.0	0.0	0.0
FOLR1	70.1	210.4 - 33333	100,000	363.7	0.0	53.8	15.4	30.8	0.0
Furin	335.9	1007.7 - 200000	200,000	40.0	0.0	100.0	0.0	0.0	0.0
GASP-1	7.7	23.2 - 2000	2,000	6.5	0.0	100.0	0.0	0.0	0.0
GASP-2	67.8	203.4 - 33333	100,000	12.8	0.0	100.0	0.0	0.0	0.0
G-CSF R	22.5	67.4 - 10000	10,000	0.7	0.0	100.0	0.0	0.0	0.0
HAI-2	21.2	63.7 - 40000	40,000	2.9	0.0	100.0	0.0	0.0	0.0
IL-17B R	106.5	319.6 - 100000	100,000	0.0	0.0	100.0	0.0	0.0	0.0
IL-27	7.3	21.8 - 10000	10,000	1.9	0.0	100.0	0.0	0.0	0.0
LAG-3	515.1	1545.3 - 100000	100,000	118.6	0.0	100.0	0.0	0.0	0.0
LDL R	1.0	3 - 2000	2,000	0.1	0.0	100.0	0.0	0.0	0.0
Pepsinogen I	22.0	66.1 - 2222	6,667	13.5	0.0	100.0	0.0	0.0	0.0
RANK	195.0	585 - 100000	100,000	198.1	0.0	92.3	7.7	0.0	0.0
RBP4	15.4	46.2 - 2222	6,667	9,076.6	7,955.0	0.0	0.0	0.0	100.0
SOST	78.9	236.8 - 13333	40,000	0.0	0.0	100.0	0.0	0.0	0.0
Syndecan-1	67.8	203.3 - 33333	100,000	481.0	155.2	0.0	15.4	84.6	0.0
TACI	118.9	356.8 - 40000	40,000	124.1	0.0	92.3	7.7	0.0	0.0
TFPI	35.5	106.4 - 11111	33,333	0.3	0.0	100.0	0.0	0.0	0.0
TSP-1	286.7	860.1 - 100000	100,000	15,871.7	0.0	15.4	0.0	84.6	0.0
TRAIL R2	9.7	29.2 - 4000	4,000	8.8	0.0	100.0	0.0	0.0	0.0
TRANCE	101.2	303.5 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
Troponin I	578.4	1735.2 - 200000	200,000	87.6	0.0	100.0	0.0	0.0	0.0
uPA	7.0	21 - 4000	4,000	77.7	16.5	0.0	23.1	76.9	0.0
VE-Cadherin	277.1	831.3 - 200000	200,000	0.0	0.0	100.0	0.0	0.0	0.0
WISP-1	159.2	477.7 - 22222	66,667	0.0	0.0	100.0	0.0	0.0	0.0

Group 6

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
ANGPTL3	91.9	275.7 - 10000	10,000	397.9	0.0	69.2	15.4	15.4	0.0
bIG-H3	33.8	101.4 - 10000	10,000	19.4	0.0	100.0	0.0	0.0	0.0
CA9	25.3	75.8 - 10000	10,000	16.8	0.0	100.0	0.0	0.0	0.0
Cathepsin B	26.2	78.5 - 10000	10,000	20.3	0.0	100.0	0.0	0.0	0.0
CD23	36.7	110.2 - 10000	10,000	5.7	0.0	100.0	0.0	0.0	0.0
CHI3L1	18.9	56.8 - 10000	10,000	2,266.4	12.4	7.7	38.5	53.8	0.0
CTLA4	15.8	47.3 - 4000	4,000	34.1	0.0	84.6	15.4	0.0	0.0
Dkk-4	88.9	266.8 - 11111	33,333	54.2	0.0	100.0	0.0	0.0	0.0
DPPIV	404.1	1212.2 - 200000	200,000	117.0	0.0	100.0	0.0	0.0	0.0
EDA-A2	12.6	37.8 - 10000	10,000	1.9	0.0	100.0	0.0	0.0	0.0
Epo R	90.6	271.8 - 40000	40,000	0.0	0.0	100.0	0.0	0.0	0.0
FGF-6	32.6	97.7 - 10000	10,000	19.2	0.0	100.0	0.0	0.0	0.0
FGF-9	17.4	52.2 - 4000	4,000	7.9	0.0	100.0	0.0	0.0	0.0
Gas 1	69.2	207.7 - 100000	100,000	56.5	0.0	100.0	0.0	0.0	0.0
IGFBP-5	818.9	2456.6 - 200000	200,000	1,121.7	0.0	76.9	23.1	0.0	0.0
IL-1 F5	186.8	560.4 - 200000	200,000	51.8	0.0	100.0	0.0	0.0	0.0
IL-1 F6	299.6	898.7 - 100000	100,000	388.7	0.0	92.3	7.7	0.0	0.0
IL-1 F7	206.1	618.4 - 100000	100,000	76.3	0.0	100.0	0.0	0.0	0.0
IL-1 F8	8.9	26.6 - 4000	4,000	14.3	0.0	69.2	30.8	0.0	0.0
IL-1 F9	395.1	1185.3 - 100000	100,000	2,634.5	0.0	76.9	0.0	23.1	0.0
IL-1 F10	1165.1	3495.2 - 200000	200,000	1,304.7	0.0	69.2	30.8	0.0	0.0
IL-1 R5	1.3	4 - 1000	1,000	20.8	0.0	69.2	15.4	15.4	0.0
IL-17C	164.5	493.5 - 133333	400,000	38.0	0.0	100.0	0.0	0.0	0.0
IL-18	44.5	133.6 - 40000	40,000	3.3	0.0	100.0	0.0	0.0	0.0
IL-20	46.2	138.6 - 11111	33,333	40.9	0.4	100.0	0.0	0.0	0.0
IL-34	33.0	98.9 - 40000	40,000	18.0	0.0	100.0	0.0	0.0	0.0
IL-5 Ra	592.4	1777.1 - 400000	400,000	484.6	0.0	100.0	0.0	0.0	0.0
IL-10 Ra	932.7	2798.1 - 200000	200,000	241.3	0.0	100.0	0.0	0.0	0.0
Layilin	21.4	64.1 - 10000	10,000	53.6	0.0	92.3	7.7	0.0	0.0
Leptin R	65.6	196.8 - 100000	100,000	449.9	0.0	84.6	7.7	7.7	0.0
Marapsin	83.6	250.7 - 20000	20,000	167.6	0.0	38.5	61.5	0.0	0.0
Mer	54.0	162 - 10000	10,000	82.2	0.0	76.9	23.1	0.0	0.0
MMP-7	63.1	189.4 - 33333	100,000	148.4	0.0	69.2	30.8	0.0	0.0
P-Cadherin	113.8	341.4 - 100000	100,000	93.3	0.0	100.0	0.0	0.0	0.0
Prostasin	45.4	136.1 - 20000	20,000	72.5	0.0	92.3	7.7	0.0	0.0
PSMA	111.8	335.5 - 100000	100,000	180.5	0.0	84.6	15.4	0.0	0.0
SIGIRR	349.7	1049 - 100000	100,000	103.8	0.0	100.0	0.0	0.0	0.0
TGFb RIII	38.3	114.9 - 20000	20,000	374.6	0.0	84.6	7.7	7.7	0.0
TF	4.5	13.6 - 4000	4,000	4.6	0.3	92.3	7.7	0.0	0.0
TWEAK	122.1	366.4 - 100000	100,000	217.0	13.7	53.8	46.2	0.0	0.0

Group 7

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
ADAMTS13	275.8	827.3 - 100000	100,000	540.6	0.0	46.2	53.8	0.0	0.0
Aggrecan	48.4	145.1 - 20000	20,000	0.6	0.0	100.0	0.0	0.0	0.0
Angiotensinogen	472.5	1417.6 - 100000	100,000	8,494.0	2,761.1	0.0	0.0	100.0	0.0
B7-H1	35.4	106.3 - 10000	10,000	7.0	0.0	100.0	0.0	0.0	0.0
BMPR-IA	205.4	616.3 - 100000	100,000	357.3	0.0	76.9	23.1	0.0	0.0
BMPR-II	219.8	659.4 - 100000	100,000	283.7	0.0	92.3	7.7	0.0	0.0
Cadherin-11	1088.8	3266.3 - 400000	400,000	912.6	0.0	100.0	0.0	0.0	0.0
CD27	19.5	58.5 - 10000	10,000	10.0	0.0	100.0	0.0	0.0	0.0
CD6	522.0	1566 - 100000	100,000	60.8	0.0	100.0	0.0	0.0	0.0
Ck beta 8-1	112.1	336.2 - 33333	100,000	7.7	0.0	100.0	0.0	0.0	0.0
CNTF	143.7	431 - 100000	100,000	140.9	0.0	100.0	0.0	0.0	0.0
DNAM-1	312.4	937.3 - 100000	100,000	787.0	0.0	84.6	15.4	0.0	0.0
EMMPRIN	8.1	24.3 - 2000	2,000	23.6	8.8	0.0	100.0	0.0	0.0
FLRG	25.1	75.4 - 10000	10,000	17.4	0.0	100.0	0.0	0.0	0.0
Follistatin-like 1	1094.0	3282.1 - 400000	400,000	42.6	0.0	100.0	0.0	0.0	0.0
Fractalkine	229.8	689.5 - 40000	40,000	123.0	0.0	100.0	0.0	0.0	0.0
Galectin-1	89.9	269.7 - 20000	20,000	97.2	3.0	92.3	7.7	0.0	0.0
GITR L	382.2	1146.5 - 200000	200,000	180.3	0.0	100.0	0.0	0.0	0.0
Granulysin	21.5	64.5 - 4000	4,000	19.0	0.0	100.0	0.0	0.0	0.0
IL-1 R3	16.6	49.8 - 10000	10,000	24.7	10.6	69.2	30.8	0.0	0.0
IL-15 R	7.6	22.8 - 2000	2,000	30.2	0.0	46.2	46.2	7.7	0.0
IL-17E	66.9	200.6 - 40000	40,000	52.0	0.0	100.0	0.0	0.0	0.0
IL-32 alpha	10.4	31.1 - 4000	4,000	3.3	0.0	100.0	0.0	0.0	0.0
L1CAM-2	689.0	2067 - 200000	200,000	1,935.9	0.0	69.2	30.8	0.0	0.0
LRIG3	967.2	2901.7 - 200000	200,000	24.2	0.0	100.0	0.0	0.0	0.0
LRP-6	386.6	1159.9 - 200000	200,000	1,262.8	0.0	61.5	23.1	15.4	0.0
MEPE	203.8	611.5 - 200000	200,000	88.4	0.0	100.0	0.0	0.0	0.0
Nectin-4	140.1	420.2 - 20000	20,000	218.3	0.0	69.2	30.8	0.0	0.0
Periostin	679.0	2037 - 200000	200,000	149.4	0.0	100.0	0.0	0.0	0.0
Persephin	421.5	1264.4 - 100000	100,000	68.0	0.0	100.0	0.0	0.0	0.0
Renin	12.6	37.7 - 3333	10,000	5.6	0.0	100.0	0.0	0.0	0.0
RGM-B	144.0	432 - 100000	100,000	77.5	0.0	100.0	0.0	0.0	0.0
ROBO3	7.4	22.1 - 2000	2,000	2.9	0.0	100.0	0.0	0.0	0.0
S100A8	7.7	23.1 - 10000	10,000	2.1	0.0	100.0	0.0	0.0	0.0
Siglec-7	10.8	32.4 - 2000	2,000	19.1	0.0	92.3	7.7	0.0	0.0
Syndecan-3	447.9	1343.6 - 100000	100,000	81.5	0.0	100.0	0.0	0.0	0.0
Thrombospondin-2	28.2	84.6 - 10000	10,000	115.5	0.0	46.2	15.4	38.5	0.0
Thrombospondin-5	28.1	84.2 - 10000	10,000	34.0	0.0	92.3	7.7	0.0	0.0
Tie-1	28.8	86.4 - 10000	10,000	63.1	0.0	61.5	38.5	0.0	0.0
ULBP-2	11.3	33.9 - 4000	4,000	53.5	0.0	46.2	30.8	23.1	0.0

Group 8

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
ADAM8	320.2	960.6 - 100000	100,000	34.9	0.0	100.0	0.0	0.0	0.0
ADAM12	56.5	169.4 - 20000	20,000	1.8	0.0	100.0	0.0	0.0	0.0
B7-H3	21.1	63.4 - 4000	4,000	59.5	0.0	76.9	23.1	0.0	0.0
BMPR-IB	20.4	61.2 - 10000	10,000	642.3	0.0	46.2	23.1	30.8	0.0
Cadherin-4	14.3	42.9 - 10000	10,000	51.1	0.0	76.9	15.4	7.7	0.0
Cadherin-13	190.9	572.8 - 100000	100,000	1,037.1	0.0	61.5	15.4	23.1	0.0
CD48	238.2	714.7 - 200000	200,000	406.0	0.0	84.6	15.4	0.0	0.0
CD58	406.8	1220.3 - 100000	100,000	236.1	0.0	100.0	0.0	0.0	0.0
CD84	467.9	1403.8 - 100000	100,000	1,260.0	0.0	46.2	53.8	0.0	0.0
CD99	4.7	14 - 4000	4,000	3.2	0.0	100.0	0.0	0.0	0.0
CD155	310.6	931.8 - 100000	100,000	4,117.0	0.0	23.1	23.1	53.8	0.0
CD229	19.4	58.3 - 10000	10,000	12.6	0.0	100.0	0.0	0.0	0.0
CEACAM-5	179.4	538.2 - 100000	100,000	346.3	0.0	84.6	15.4	0.0	0.0
CF XIV	21.2	63.5 - 20000	20,000	33.8	0.0	92.3	7.7	0.0	0.0
Cystatin A	7.6	22.8 - 4000	4,000	20.2	0.0	92.3	7.7	0.0	0.0
Cystatin B	15.8	47.3 - 4000	4,000	75.8	0.0	30.8	30.8	38.5	0.0
Cystatin E M	25.2	75.6 - 1111	3,333	16.5	0.0	100.0	0.0	0.0	0.0
Desmoglein 2	57.5	172.5 - 20000	20,000	103.5	0.0	84.6	15.4	0.0	0.0
DR3	179.6	538.7 - 100000	100,000	74.0	0.0	100.0	0.0	0.0	0.0
ErbB4	34.4	103.1 - 10000	10,000	0.0	0.0	100.0	0.0	0.0	0.0
ESAM	43.6	130.7 - 10000	10,000	80.3	0.0	84.6	15.4	0.0	0.0
FGF-21	5.1	15.4 - 4000	4,000	6.4	0.0	92.3	7.7	0.0	0.0
Galectin-2	32.0	95.9 - 20000	20,000	25.6	0.0	100.0	0.0	0.0	0.0
Galectin-9	10.3	30.8 - 10000	10,000	3.7	0.0	100.0	0.0	0.0	0.0
ICOS	231.8	695.5 - 100000	100,000	272.4	0.0	92.3	7.7	0.0	0.0
JAM-A	3.2	9.6 - 4000	4,000	0.6	0.0	100.0	0.0	0.0	0.0
JAM-B	13.0	39.1 - 10000	10,000	0.7	0.0	100.0	0.0	0.0	0.0
Kallikrein 5	20.4	61.2 - 10000	10,000	76.0	0.0	92.3	0.0	7.7	0.0
Midkine	53.1	159.4 - 6666	20,000	4.3	0.0	100.0	0.0	0.0	0.0
Pentraxin 3	11.4	34.1 - 10000	10,000	244.1	0.0	53.8	15.4	30.8	0.0
Pref-1	149.6	448.7 - 100000	100,000	121.1	0.0	100.0	0.0	0.0	0.0
Siglec-10	575.7	1727.1 - 200000	200,000	0.0	0.0	100.0	0.0	0.0	0.0
SLAM	136.0	408.1 - 100000	100,000	72.6	0.0	100.0	0.0	0.0	0.0
SP-D	31.8	95.3 - 20000	20,000	37.2	0.0	92.3	7.7	0.0	0.0
Syndecan-4	3.1	9.2 - 1000	1,000	4.7	0.0	92.3	7.7	0.0	0.0
Testican 2	42.9	128.8 - 40000	40,000	90.4	0.0	84.6	15.4	0.0	0.0
TIM-3	14.6	43.7 - 10000	10,000	127.8	0.0	84.6	7.7	7.7	0.0
TLR4	114.8	344.4 - 200000	200,000	6.3	0.0	100.0	0.0	0.0	0.0
TRAIL	2.2	6.5 - 2000	2,000	3.8	0.0	92.3	7.7	0.0	0.0
ULBP-1	27.1	81.3 - 20000	20,000	63.5	5.0	76.9	23.1	0.0	0.0

Group 9

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
AR	5.2	15.6 - 10000	10,000	36.3	0.0	46.2	15.4	38.5	0.0
BDNF	1.8	5.5 - 666	2,000	0.3	0.0	100.0	0.0	0.0	0.0
bFGF	37.0	110.9 - 20000	20,000	153.6	0.0	46.2	23.1	30.8	0.0
BMP-4	49.9	149.7 - 33333	100,000	40.9	1.7	100.0	0.0	0.0	0.0
BMP-5	324.4	973.3 - 100000	100,000	0.0	0.0	100.0	0.0	0.0	0.0
BMP-7	63.3	189.9 - 40000	40,000	22.1	0.0	100.0	0.0	0.0	0.0
b-NGF	4.5	13.5 - 1111	3,333	0.0	0.0	100.0	0.0	0.0	0.0
EGF	0.1	0.4 - 200	200	0.3	0.0	53.8	46.2	0.0	0.0
EGF R	5.6	16.7 - 10000	10,000	39.5	13.9	0.0	23.1	76.9	0.0
EG-VEGF	6.5	19.4 - 10000	10,000	13.9	0.0	84.6	15.4	0.0	0.0
FGF-4	162.0	485.9 - 11111	33,333	300.2	0.0	76.9	23.1	0.0	0.0
FGF-7	18.7	56.1 - 10000	10,000	7.1	0.0	100.0	0.0	0.0	0.0
GDF-15	1.2	3.6 - 2000	2,000	0.5	0.0	100.0	0.0	0.0	0.0
GDNF	11.9	35.7 - 4000	4,000	3.4	0.0	100.0	0.0	0.0	0.0
GH	21.9	65.7 - 10000	10,000	8.6	0.0	100.0	0.0	0.0	0.0
HB-EGF	14.0	42.1 - 3333	10,000	0.0	0.0	100.0	0.0	0.0	0.0
HGF	10.7	32 - 4000	4,000	8.9	0.0	100.0	0.0	0.0	0.0
IGFBP-1	16.1	48.4 - 5000	5,000	4.7	0.0	100.0	0.0	0.0	0.0
IGFBP-2	41.9	125.7 - 20000	20,000	65.1	0.0	84.6	15.4	0.0	0.0
IGFBP-3	470.8	1412.4 - 200000	200,000	302.2	0.0	100.0	0.0	0.0	0.0
IGFBP-4	204.4	613.2 - 200000	200,000	656.3	0.0	92.3	0.0	7.7	0.0
IGFBP-6	83.4	250.1 - 100000	100,000	203.5	0.0	84.6	15.4	0.0	0.0
IGF-1	129.5	388.5 - 20000	20,000	131.4	0.0	92.3	7.7	0.0	0.0
Insulin	65.7	197.2 - 20000	20,000	75.6	0.0	76.9	23.1	0.0	0.0
MCSF R	43.4	130.1 - 40000	40,000	672.0	308.1	0.0	0.0	100.0	0.0
NGF R	25.6	76.8 - 10000	10,000	17.3	0.0	100.0	0.0	0.0	0.0
NT-3	30.3	90.9 - 40000	40,000	29.9	0.0	100.0	0.0	0.0	0.0
NT-4	13.0	39 - 10000	10,000	23.8	0.0	69.2	30.8	0.0	0.0
OPG	1.9	5.8 - 4000	4,000	2.9	0.1	69.2	30.8	0.0	0.0
PDGF-AA	4.0	11.9 - 3333	10,000	4.3	0.0	76.9	23.1	0.0	0.0
PIGF	1.9	5.7 - 4000	4,000	4.1	0.0	61.5	38.5	0.0	0.0
SCF	2.9	8.6 - 10000	10,000	6.4	0.0	69.2	30.8	0.0	0.0
SCF R	16.8	50.4 - 20000	20,000	376.6	161.8	0.0	0.0	100.0	0.0
TGFa	2.6	7.7 - 10000	10,000	0.0	0.0	100.0	0.0	0.0	0.0
TGFb1	414.3	1243 - 100000	100,000	472.8	0.0	92.3	7.7	0.0	0.0
TGFb3	24.8	74.3 - 4444	13,333	0.4	0.0	100.0	0.0	0.0	0.0
VEGF	22.9	68.6 - 10000	10,000	14.4	0.0	100.0	0.0	0.0	0.0
VEGF R2	7.2	21.6 - 10000	10,000	58.4	5.1	38.5	15.4	46.2	0.0
VEGF R3	29.9	89.8 - 40000	40,000	40.3	0.6	92.3	7.7	0.0	0.0
VEGF-D	49.7	149.1 - 20000	20,000	4.7	0.0	100.0	0.0	0.0	0.0

Group 10

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
BLC	1.1	3.2 - 222	667	0.1	0.0	100.0	0.0	0.0	0.0
Eotaxin	2.0	6.1 - 444	1,333	0.6	0.0	100.0	0.0	0.0	0.0
Eotaxin-2	2.9	8.7 - 1000	1,000	0.0	0.0	100.0	0.0	0.0	0.0
G-CSF	12.6	37.8 - 6666	20,000	1.0	0.0	100.0	0.0	0.0	0.0
GM-CSF	6.5	19.4 - 1000	1,000	1.5	0.0	100.0	0.0	0.0	0.0
I-309	3.8	11.4 - 4000	4,000	2.7	0.0	100.0	0.0	0.0	0.0
ICAM-1	42.7	128.2 - 33333	100,000	430.5	54.4	0.0	23.1	76.9	0.0
IFNg	4.6	13.8 - 666	2,000	0.7	0.0	100.0	0.0	0.0	0.0
IL-1a	5.4	16.3 - 2000	2,000	8.3	0.6	69.2	30.8	0.0	0.0
IL-1b	0.6	1.7 - 1000	1,000	4.6	0.0	84.6	7.7	7.7	0.0
IL-1ra	9.1	27.3 - 2000	2,000	20.2	5.8	30.8	69.2	0.0	0.0
IL-2	6.1	18.2 - 2000	2,000	1.4	0.0	100.0	0.0	0.0	0.0
IL-4	3.5	10.5 - 2000	2,000	2.0	0.0	100.0	0.0	0.0	0.0
IL-5	17.5	52.4 - 4000	4,000	7.7	0.0	100.0	0.0	0.0	0.0
IL-6	18.5	55.5 - 2000	2,000	19.1	0.0	92.3	7.7	0.0	0.0
IL-6R	3.8	11.5 - 10000	10,000	103.8	3.8	7.7	23.1	69.2	0.0
IL-7	9.6	28.7 - 4000	4,000	3.6	0.0	100.0	0.0	0.0	0.0
IL-8	2.2	6.6 - 500	500	5.9	0.0	61.5	38.5	0.0	0.0
IL-10	3.1	9.3 - 4000	4,000	0.7	0.0	100.0	0.0	0.0	0.0
IL-11	10.0	30.1 - 2222	6,667	10.5	0.0	92.3	7.7	0.0	0.0
IL-12p40	6.7	20 - 3333	10,000	1.8	0.0	100.0	0.0	0.0	0.0
IL-12p70	1.1	3.3 - 500	500	1.1	0.0	92.3	7.7	0.0	0.0
IL-13	2.5	7.4 - 1000	1,000	10.0	2.7	0.0	84.6	15.4	0.0
IL-15	8.1	24.4 - 4000	4,000	5.7	2.0	100.0	0.0	0.0	0.0
IL-16	13.0	39 - 1666	5,000	1.4	0.0	100.0	0.0	0.0	0.0
IL-17	7.7	23 - 4000	4,000	3.8	0.0	100.0	0.0	0.0	0.0
MCP-1	4.5	13.6 - 666	2,000	2.5	0.0	100.0	0.0	0.0	0.0
MCSF	2.7	8.2 - 1333	4,000	3.4	0.0	92.3	7.7	0.0	0.0
MIG	83.3	249.8 - 5000	5,000	189.0	32.3	69.2	30.8	0.0	0.0
MIP-1a	11.4	34.1 - 1111	3,333	25.4	0.0	69.2	30.8	0.0	0.0
MIP-1b	2.2	6.7 - 333	1,000	3.9	0.3	38.5	61.5	0.0	0.0
MIP-1d	6.2	18.6 - 3333	10,000	1.1	0.0	100.0	0.0	0.0	0.0
PDGF-BB	2.0	5.9 - 2000	2,000	2.6	0.0	76.9	23.1	0.0	0.0
RANTES	10.8	32.4 - 2222	6,667	44.9	0.0	69.2	23.1	7.7	0.0
TIMP-1	21.2	63.6 - 4444	13,333	367.6	68.3	0.0	0.0	100.0	0.0
TIMP-2	20.8	62.5 - 40000	40,000	4,694.7	0.0	30.8	0.0	69.2	0.0
TNFa	25.3	76 - 2000	2,000	72.5	3.8	46.2	53.8	0.0	0.0
TNFb	49.8	149.3 - 20000	20,000	22.0	0.0	100.0	0.0	0.0	0.0
TNF RI	29.4	88.3 - 40000	40,000	414.0	18.8	23.1	23.1	53.8	0.0
TNF RII	43.4	130.1 - 40000	40,000	231.9	0.0	61.5	0.0	38.5	0.0

Group 11

Target	LOD (pg/ml)	Best Confident Range	Maximum Value	Highest Reported Value	Lowest Reported Value	% Below LOD	% Above LOD but <3xLOD	% in Best Confidence	% Above Maximum
4-1BB	12.6	37.7 - 10000	10,000	7.6	0.0	100.0	0.0	0.0	0.0
ALCAM	9.2	27.5 - 10000	10,000	5.3	0.0	100.0	0.0	0.0	0.0
B7-1	10.9	32.8 - 10000	10,000	10.1	0.0	100.0	0.0	0.0	0.0
BCMA	17.2	51.5 - 20000	20,000	181.5	95.4	0.0	0.0	100.0	0.0
CD14	30.9	92.7 - 10000	10,000	34.8	0.0	84.6	15.4	0.0	0.0
CD30	27.9	83.7 - 10000	10,000	19.2	0.0	100.0	0.0	0.0	0.0
CD40L	9.7	29 - 10000	10,000	1.3	0.0	100.0	0.0	0.0	0.0
CEACAM-1	46.0	138 - 10000	10,000	36.4	0.0	100.0	0.0	0.0	0.0
DR6	79.2	237.6 - 4000	4,000	313.5	0.0	69.2	23.1	7.7	0.0
Dtk	26.3	78.9 - 20000	20,000	66.7	0.0	76.9	23.1	0.0	0.0
Endoglin	17.4	52.1 - 4000	4,000	59.0	0.0	38.5	38.5	23.1	0.0
ErbB3	47.4	142.3 - 20000	20,000	110.3	0.0	84.6	15.4	0.0	0.0
E-Selectin	221.0	662.9 - 40000	40,000	1,286.1	61.8	7.7	30.8	61.5	0.0
Fas	4.7	14 - 2000	2,000	1.5	0.0	100.0	0.0	0.0	0.0
Flt-3L	1.9	5.7 - 2000	2,000	2.3	0.0	84.6	15.4	0.0	0.0
GITR	34.9	104.8 - 10000	10,000	17.9	0.0	100.0	0.0	0.0	0.0
HVEM	39.8	119.3 - 40000	40,000	11.7	0.0	100.0	0.0	0.0	0.0
ICAM-3	67.2	201.5 - 33333	100,000	59.6	0.0	100.0	0.0	0.0	0.0
IL-1 R4	10.8	32.3 - 4000	4,000	3.1	0.0	100.0	0.0	0.0	0.0
IL-1 RI	23.2	69.5 - 4000	4,000	21.6	0.0	100.0	0.0	0.0	0.0
IL-2 Rg	81.5	244.6 - 10000	10,000	420.0	0.0	76.9	7.7	15.4	0.0
IL-10 Rb	13.0	39 - 4000	4,000	36.0	0.0	69.2	30.8	0.0	0.0
IL-17R	30.9	92.7 - 10000	10,000	11.6	0.0	100.0	0.0	0.0	0.0
IL-21R	25.5	76.4 - 20000	20,000	168.1	8.4	15.4	69.2	15.4	0.0
LIMPII	16.2	48.5 - 4000	4,000	5.9	0.0	100.0	0.0	0.0	0.0
Lipocalin-2	2.0	6.1 - 1000	1,000	2,198.4	33.0	0.0	0.0	38.5	61.5
L-Selectin	448.3	1344.8 - 100000	100,000	1,337.3	0.0	38.5	61.5	0.0	0.0
LYVE-1	1.4	4.2 - 2000	2,000	202.0	117.8	0.0	0.0	100.0	0.0
MICA	13.6	40.7 - 10000	10,000	13.8	0.0	92.3	7.7	0.0	0.0
MICB	18.6	55.8 - 15000	15,000	142.5	1.3	7.7	7.7	84.6	0.0
NRG1-b1	21.3	64 - 15000	15,000	70.4	0.0	69.2	23.1	7.7	0.0
PDGF Rb	582.8	1748.3 - 100000	100,000	1,598.1	0.0	84.6	15.4	0.0	0.0
PECAM-1	66.4	199.1 - 20000	20,000	62.4	0.0	100.0	0.0	0.0	0.0
RAGE	9.6	28.8 - 10000	10,000	8.8	0.0	100.0	0.0	0.0	0.0
TIM-1	30.4	91.2 - 10000	10,000	18.8	0.0	100.0	0.0	0.0	0.0
TRAIL R3	9.5	28.6 - 5000	5,000	58.7	0.0	53.8	38.5	7.7	0.0
Trappin-2	15.4	46.3 - 3333	10,000	1,094.2	0.0	7.7	15.4	76.9	0.0
uPAR	49.4	148.1 - 40000	40,000	941.4	0.0	15.4	38.5	46.2	0.0
VCAM-1	364.5	1093.5 - 200000	200,000	631.6	0.0	38.5	61.5	0.0	0.0
XEDAR	25.9	77.7 - 10000	10,000	12.0	0.0	100.0	0.0	0.0	0.0

Supplementary Table 4. Cytokines produced at statistically significant different levels during neutrophil swarming compared to non-swarming (NS) and non-activated (NA) controls.

Cytokine	Significance	Comparison Turkey-Kramer			
		Group	Level	Comparison	p Value
Adiponectin	F (2,9) = 14.4962 p= 0.005 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0041
		NS	AB	Swarm - NS	0.0568
		NA	B	NS - NA	0.1146
Adipsin	F (2,9) = 7.5897 p= 0.0227 Transformed Data	Swarm	A	Swarm - NA	0.0041
		NS	A	Swarm - NS	0.0406
		NA	B	NS - NA	0.9651
ANG-2	F (2,9) = 11.1386 p= 0.0096 ANOVA	Swarm	A	Swarm - NA	0.0403
		NS	A	NS - NA	0.0089
		NA	B	Swarm - NS	0.424
Cathepsin-S	F (2,9) = 32 p= 0.0006 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0005
		NS	B	NS - NA	0.0167
		NA	AB	Swarm - NS	0.0167
CD200	F (2,9) = 6.9692 p= 0.0273 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0299
		NS	AB	NS - NA	0.0627
		NA	B	Swarm - NS	0.8214
CHI3L1	F (2,9) = 11.3831 p= 0.0091 Transformed Data	Swarm	A	Swarm - NA	0.0152
		NS	A	NS - NA	0.0138
		NA	B	Swarm - NS	0.9955
Clusterin	F (2,9) = 13.3458 p= 0.0062 Transformed Data	Swarm	A	Swarm - NA	0.0062
		NS	A	NS - NA	0.0196
		NA	B	Swarm - NS	0.5788
CRP	F (2,9) = 5.416 p= 0.0444 ANOVA	Swarm	A	Swarm - NA	0.0392
		NS	AB	Swarm - NS	0.1733
		NA	B	NS - NA	0.5049
Galectin-3	F (2,9) = 17.6341 p= 0.0031 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0025
		NS	B	Swarm - NS	0.04
		NA	AB	NS - NA	0.0814
CXCL3	F (2,9) = 7.3665 p= 0.0242 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0387
		NS	A	NS - NA	0.0348
		NA	B	Swarm - NS	0.9957
IL-21R	F (2,9) = 5.5921 p= 0.0426 Kruskal-Wallis	Swarm	A	Swarm - NA	0.0357
		NS	AB	Swarm - NS	0.2897
		NA	B	NS - NA	0.2897
IL-24	F (2,9) = 12.2516	Swarm	A	Swarm - NA	0.0062

	p= 0. 0076 Kruskal-Wallis	NS NA	AB B	NS - NA Swarm - NS	0.1468 0.0766
IL-6R	F (2,9) = 17.1 p= 0.0033 Kruskal-Wallis	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.0028 0.0302 0.1278
LAP(TGFb1)	F (2,9) = 6.4047 p= 0.0325 ANOVA	Swarm NS NA	A AB B	Swarm - NA Swarm - NS NS - NA	0.0342 0.0783 0.7879
Lipocalin-2	F (2,9) = 115.0711 p< 0.0001 ANOVA	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	<0.0001 <0.0001 0.957
LOX-1	F (2,9) = 12.9864 p= 0.0066 ANOVA	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.0068 0.0218 0.5518
MICB	F (2,9) = 6.1685 p= 0.0350 Kruskal-Wallis	Swarm NS NA	A AB B	Swarm - NA Swarm - NS NS - NA	0.0453 0.0598 0.9726
CCL3	F (2,9) = 6.7585 p= 0.0291 ANOVA	Swarm NS NA	A AB B	Swarm - NA Swarm - NS NS - NA	0.0247 0.582 0.3552
MMP-8	F (2,9) = 18 p= 0.0029 Kruskal-Wallis	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.0049 0.0049 1
MMP-9	F (2,9) = 24.6723 p= 0.0013 ANOVA	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.002 0.0024 1
CXCL7	F (2,9) = 30.0237 p= 0.0007 ANOVA	Swarm NS NA	A B AB	Swarm - NA NS - NA Swarm - NS	0.0006 0.0192 0.0193
Neprilysin	F (2,9) = 5.3345 p= 0.0466 Kruskal-Wallis	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0427 0.5904 0.1546
Nidogen-1	F (2,9) = 27.7397 p= 0.0009 Kruskal-Wallis	Swarm NS NA	A B AB	Swarm - NA Swarm - NS NS - NA	0.0007 0.0299 0.0299
NOV	F (2,9) = 5.8505 p= 0. 0389 Transformed Data	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0329 0.2187 0.35
NT-3	F (2,9) = 5.6436 p= 0.0418 ANOVA	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0329 0.0421 0.1063
PDGF-BB	F (2,9) = 10.0877 p= 0.0120	Swarm NS	A B	Swarm - NA NS - NA	0.0114 0.4815

	ANOVA	NA	B	Swarm - NS	0.0464
Pentraxin 3	F (2,9) = 52,9715 p= 0.0002 Transformed Data	Swarm NS NA	A B AB	Swarm - NA NS - NA Swarm - NS	0.001 0.0015 0.0247
CXCL4	F (2,9) = 22.0507 p= 0.0017 Transformed Data Analysis	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.0017 0.0077 0.2894
PGRP-S	F (2,9) = 97.6231 p< 0.0001 Transformed Data	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	<0.0001 <0.0001 0.9447
RANK	F (2,9) = 5.5714 p= 0.0429 Kruskal-Wallis	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.031 0.2543 0.3326
CCL5	F (2,9) = 29.7448 p= 0.0008 Transformed Data	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.0006 0.0071 0.0676
Siglec-5	F (2,9) = 8.4716 p= 0.0179 Kruskal-Wallis	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0152 0.1083 0.3028
TIMP-1	F (2,9) = 20.2521 p= 0.0021 ANOVA	Swarm NS NA	A B AB	Swarm - NA Swarm - NS NS - NA	0.0017 0.0429 0.0441
TIMP-2	F (2,9) = 23.6422 p= 0.0014 Transformed Data	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	<0.0022 <0.0027 0.9447
TLR2	F (2,9) = 5.9131 p= 0.0381 ANOVA	Swarm NS NA	A A B	Swarm - NA NS - NA Swarm - NS	0.017 0.0435 0.4969
TLR4	F (2,9) = 6.6585 p= 0.0300 ANOVA	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0254 0.3431 0.1691
TRAIL R3	F (2,9) = 5.6919 p= 0.0411 Kruskal-Wallis	Swarm NS NA	A AB B	NS - NA Swarm - NA Swarm - NS	0.1253 0.0388 0.6397
Trappin-2	F (2,9) = 9.2969 p= 0.0145 Transformed Data	Swarm NS NA	A AB B	Swarm - NA NS - NA Swarm - NS	0.0121 0.1125 0.2252
TSP-1	F (2,9) = 33.0743 p= 0.0006 ANOVA	Swarm NS NA	A B AB	Swarm - NA NS - NA Swarm - NS	0.0005 0.0327 0.0081

Supplementary Table 5. Demographic information for the patients used for the measurements reported in Figure 6.

Patient ID	Sex	Age	Type	Infection	Treatment
Pt13	M	57	Trauma	-	-
Pt14	M	76	Trauma	-	Levophed
Pt15	M	50	Trauma	Suspected	Trimethoprim/Sulfamethoxazole, Ivermectin; Meropenem, Micafungin, Valaciclovir, Daptomycin, Midodrine
Pt16	M	65	Trauma	-	Vanco, Cefepime
Pt17	F	66	Trauma	-	Vanco, Cefepime, Levophed
Pt18	M	64	Trauma	-	Vanco, Amphotericin, Levophed
Pt19	M	87	Trauma	Clostridium difficile colitis	Vanco, Piperacillin, Tazobactam, Midodrine
Pt21	F	49	Trauma	-	Clindamycin, Levophed
M13	F	54	Autoimmune disease	SOFA: 2; Exanthematous Pustulosis (mimicked candida infection)	
T30	F	66	Septic	SOFA:5; VRE; MRSA; MRDO infection	Norepinephrine, Phenylephrine

SOFA: Sequential organ failure assessment; VRE: Vancomycin-resistance enterococci; MRDO: Multi-drug resistant organism; Antibiotics: Trimethoprim, sulfamethoxazole, ivermectin, vanco, cefepime, meropenem, micafungin, valaciclovir, daptomycin, ampicillin, piperacillin, tazobactam, clindamycin; Vasoactive drugs: Levophed, midodrine, norepinephrine, phenylephrine.

Supplementary Video Captions.

Supplementary Video 1. Human neutrophil swarming on arrays of clusters of zymosan particles. Immediately after neutrophils (blue - only the nucleus of the neutrophils is stained) are added to the device, they migrate randomly on the glass surface. After one neutrophil encounters a cluster of zymosan particles (red), an increasing number of neutrophils converge and accumulate around the particle-cluster. At one hour, an array of 5 x 4 swarms is clearly visible. Initial neutrophil concentration is 7.5×10^5 cells/mL.

Supplementary Video 2. Human neutrophil swarming on a single cluster of zymosan particles. Detailed imaging of neutrophils (blue - only the nucleus of the neutrophils is stained) swarming around a single zymosan-particles cluster (red) reveals the three stages of swarming: *scouting* in the first ~10 minutes after cell loading, *amplification* that is the fastest at ~25 minutes, and *stabilization* that occurs after 40 minutes. Isolated human neutrophils are loaded on the device at 7.5×10^5 cells/mL.

Supplementary Video 3. Human neutrophils do not swarm on solitary zymosan particles. After neutrophils encounter and phagocytose a single zymosan particle, no recruitment of additional neutrophils takes place. The nucleus of the neutrophils is stained in blue. The location of the zymosan particle is indicated by the red arrow. Isolated human neutrophils are loaded on the device at 7.5×10^5 cells/mL.

Supplementary Video 4. Human neutrophil tracking during swarming. The trajectories of human neutrophils migrating towards a zymosan particle cluster (green)

are recorded over time (white tracks). Neutrophils that are tracked for the entire duration of the movie are marked in red. Neutrophils that are migrating towards the zymosan particle cluster (chemotactic migration) are marked with an additional green circle. Scale bar is 100 μm .

Supplementary Video 5. Human neutrophil tracking during swarming in the presence of LTB₄ receptors antagonists. Neutrophils were exposed to U75302 and LY255283, BLT1 and BLT2 receptors antagonists. The inhibitors were present during the experiment. The trajectories of human neutrophils migrating towards a zymosan particle cluster (green) are recorded over time (white tracks). Neutrophils that are tracked for the entire duration of the movie are marked in red. Neutrophils that are migrating towards the zymosan particle cluster (chemotactic migration) are marked with an additional green circle. Scale bar is 100 μm .