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SUPPLEMENTAL DATA

Immune-related gene expression in severe periodontitis assessed by NanoString technology: A preliminary study

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Full article is available at the following link: Immune-related gene expression in severe periodontitis assessed by NanoString technology: A preliminary study

Supplementary table 1. Content of the nCounter human inflammation v2 panel (NanoString, USA)

AGER	CCL22	CXCL3	HSPB2	IL6	MAPK8	PDGFA	TBXA2R
ALOX12	CCL23	CXCL5	IFI44	IL6R	MAPKAPK2	PIK3C2G	TCF4
ALOX15	CCL24	CXCL6	IFIT1	IL7	MAPKAPK5	PLA2G4A	TGFB1
ALOX5	CCL3	CXCL9	IFIT2	IL8	MASP1	PLCB1	TGFB2
AREG	CCL4	CXCR1	IFIT3	IL9	MASP2	PPP1R12B	TGFB3
ARG1	CCL5	CXCR2	IFNA1	IRF1	MAX	PRKCA	TGFBR1
ATF2	CCL7	CXCR4	IFNB1	IRF3	MBL2	PRKCB	TLR1
BCL2L1	CCL8	CYSLTR1	IFNG	IRF5	MEF2A	PTGDR2	TLR2
BCL6	CCR1	CYSLTR2	IL10	IRF7	MEF2B	PTGER1	TLR3
BIRC2	CCR2	DAXX	IL10RB	ITGB2	MEF2C	PTGER2	TLR4
C1QA	CCR3	DDIT3	IL11	JUN	MEF2D	PTGER3	TLR5
C1QB	CCR4	DEFA1	IL12A	KEAP1	MKNK1	PTGER4	TLR6
C1R	CCR7	ELK1	IL12B	KNG1	MMP3	PTGFR	TLR7
C1S	CD163	FASLG	IL13	LIMK1	MMP9	PTGIR	TLR8
C2	CD4	FLT1	IL15	LTA	MRC1	PTGS1	TLR9
C3	CD40	FOS	IL17A	LTB	MX1	PTGS2	TNF
C3AR1	CD40LG	FXYD2	IL18	LTB4R	MX2	PTK2	TNFAIP3
C4A	CD55	GNAQ	IL18RAP	LTB4R2	MYC	RAC1	TNFSF14
C5	CD86	GNAS	IL1A	LY96	MYD88	RAF1	TOLLIP
C6	CDC42	GNB1	IL1B	MAFF	MYL2	RAPGEF2	TRADD
C7	CEBPB	GNGT1	IL1R1	MAFG	NFATC3	RELA	TRAF2
C8A	CFB	GRB2	IL1RAP	MAFK	NFE2L2	RELB	TREM2
C8B	CFD	HDAC4	IL1RN	MAP2K1	NFKB1	RHOA	TSLP
C9	CFL1	HIF1A	IL2	MAP2K4	NLRP3	RIPK1	TWIST2
CCL11	CREB1	HLA-DRA	IL21	MAP2K6	NOD1	RIPK2	TYROBP
CCL13	CRP	HLA-DRB1	IL22	MAP3K1	NOD2	ROCK2	
CCL16	CSF1	HMGB1	IL22RA2	MAP3K5	NOS2	RPS6KA5	CLTC*
CCL17	CSF2	HMGB2	IL23A	MAP3K7	NOX1	SHC1	GAPDH*
CCL19	CSF3	HMGN1	IL23R	MAP3K9	NR3C1	SMAD7	GUSB*
CCL2	CXCL1	HRAS	IL3	MAPK1	OAS2	STAT1	HPRT1*
CCL20	CXCL10	HSH2D	IL4	MAPK14	OASL	STAT2	PGK1*
CCL21	CXCL2	HSPB1	IL5	MAPK3	OXER1	STAT3	TUBB*

This panel consists of probe sets for 255 genes, including 249 genes associated with inflammation and 6 internal reference controls (asterisked: *CLTC, GAPDH, GUSB, HPRT1, PGK1,* and *TUBB*), utilized for the normalization of gene expression data.

Supplementary table 2. Differential expression of 89 immune-related genes following the exclusion of low-expression genes (mean normalized counts < 20)

Gene	Transcript number	Periodontitis (mean)	Periodontitis (SD)	Control (mean)	Control (SD)	Fold change (P/C)	*p* value	FDR adjusted p-value	log_2FC	95% CI (lower)	95% CI (upper)
HLA-DRB1	NM_002124.1	70.35	59.2	20.24	4.45	3.48	0.003	0.27	1.80	0.93	2.67
CCR1	NM_001295.2	81.67	173.38	33.05	2.26	2.47	0.007	0.31	1.31	-0.60	3.21
IL10RB	NM_000628.3	65.62	31.47	21.86	7.27	3	0.05	0.82	1.59	0.79	2.38
NR3C1	NM_001018074.1	72.39	28.9	55.42	4.97	1.31	0.08	0.82	0.39	-0.01	0.78
HLA-DRA	NM_019111.3	102.13	121.3	28.62	21.77	3.57	0.17	0.82	1.84	-0.02	3.69
ALOX5	NM_000698.2	409.42	192.63	310	48.83	1.32	0.18	0.82	0.40	-0.12	0.93
BIRC2	NM_001166.3	52.09	17.79	23.37	10.11	2.23	0.2	0.82	1.16	0.24	2.07
CXCR4	NM_003467.2	174.85	128.3	32	30.76	5.46	0.2	0.82	2.45	0.42	4.48
CDC42	NM_001039802.1	186.42	84.15	93.47	40.46	1.99	0.21	0.82	1.00	0.04	1.95

GNAQ	NM_002072.2	29.24	17.56	20.24	4.45	1.44	0.22	0.82	0.53	-0.16	1.22
TLR2	NM_003264.3	110.61	77.69	29.79	24.74	3.71	0.23	0.82	1.89	0.12	3.67
LY96	NM_015364.2	129.92	72.75	52.25	31.77	2.49	0.24	0.82	1.31	0.00	2.63
MAPK14	NM_001315.1	126.82	49.4	52.25	31.77	2.43	0.26	0.82	1.28	0.01	2.54
CEBPB	NM_005194.2	612.54	181.91	222.91	159.34	2.75	0.27	0.82	1.46	0.00	2.91
MMP9	NM_004994.2	71.2	25.31	27.4	18.81	2.6	0.27	0.82	1.38	-0.03	2.79
MAPK1	NM_138957.2	108.66	40.07	67.12	24.65	1.62	0.27	0.82	0.70	-0.11	1.50
HMGB2	NM_001130688.1	32.4	20.56	21.86	7.27	1.48	0.29	0.82	0.57	-0.31	1.44
TYROBP	NM_003332.3	650.9	362.42	257.57	195.89	2.53	0.29	0.82	1.34	-0.26	2.94
MAPK3	NM_001040056.1	73.52	32.75	59	10.55	1.25	0.3	0.82	0.32	-0.22	0.85
TNF	NM_000594.2	45.22	19.43	24.78	12.99	1.82	0.31	0.82	0.87	-0.25	1.98
IRF1	NM_002198.1	89.35	70.03	49.57	25.97	1.8	0.31	0.82	0.85	-0.41	2.11
MX1	NM_002462.2	120.86	515.92	56.03	40.57	2.16	0.31	0.82	1.11	-2.97	5.19
MYD88	NM_002468.3	118.64	94.08	56.03	40.57	2.12	0.33	0.82	1.08	-0.53	2.69
GNAS	NM_080425.1	51.96	30.73	40.47	8.9	1.28	0.35	0.82	0.36	-0.33	1.05
STAT1	NM_007315.2	59.97	55.4	28.62	21.77	2.1	0.36	0.82	1.07	-0.66	2.80
TLR8	NM_016610.2	58.99	30.65	37.86	17.51	1.56	0.37	0.82	0.64	-0.40	1.67

ITGB2	NM_000211.2	197.49	126.5	71.07	82.98	2.78	0.37	0.82	1.47	-0.93	3.88
CXCR1	NM_000634.2	302.66	195.89	83.44	127.04	3.63	0.37	0.82	1.86	-1.24	4.96
RAF1	NM_002880.2	68.81	32.92	46.73	20.23	1.47	0.39	0.82	0.56	-0.41	1.52
HIF1A	NM_001530.2	182.18	105.03	132.7	46.45	1.37	0.4	0.82	0.46	-0.41	1.33
NLRP3	NM_001079821.2	39.26	34.58	24.78	12.99	1.58	0.4	0.82	0.66	-0.65	1.97
TGFB1	NM_000660.3	66.29	41.17	30.91	27.74	2.14	0.4	0.82	1.10	-0.78	2.98
TLR6	NM_006068.2	57.69	26.21	43.72	14.54	1.32	0.42	0.82	0.40	-0.38	1.18
TLR1	NM_003263.3	306.5	144.78	135.25	144.39	2.27	0.43	0.82	1.18	-1.00	3.36
FOS	NM_005252.2	5185.93	2304.69	2508.44	2375.69	2.07	0.43	0.82	1.05	-0.89	2.98
GNB1	NM_002074.3	87.86	34.44	36.01	43.04	2.44	0.43	0.82	1.29	-1.13	3.70
MAX	NM_002382.3	44.6	37.74	36.95	3.31	1.21	0.44	0.82	0.27	-0.51	1.05
IFIT1	NM_001548.3	40.58	284.08	28.62	7.86	1.42	0.45	0.82	0.50	-5.78	6.79
HSH2D	NM_032855.2	87.12	57.04	36.95	46.15	2.36	0.45	0.82	1.24	-1.33	3.80
PRKCB	NM_212535.1	95.22	30.82	38.75	52.42	2.46	0.46	0.82	1.30	-1.42	4.02
HMGN1	NM_004965.6	32.08	9.68	23.37	10.11	1.37	0.47	0.82	0.46	-0.45	1.36
CXCR2	NM_001557.2	642.91	467.6	359.73	302.89	1.79	0.47	0.82	0.84	-0.97	2.64
IL6R	NM_000565.2	36.12	10.27	24.78	12.99	1.46	0.48	0.82	0.54	-0.53	1.62
RHOA	NM_001664.2	44.05	17.63	27.4	18.81	1.61	0.48	0.82	0.68	-0.73	2.10

CFL1	NM_005507.2	267.69	96.18	153.45	135.7	1.74	0.5	0.84	0.80	-0.99	2.60
STAT3	NM_139276.2	273.17	102.2	198.27	103.9	1.38	0.53	0.84	0.46	-0.64	1.56
NFE2L2	NM_006164.3	113.84	33.97	80.95	53.51	1.41	0.58	0.87	0.49	-0.86	1.84
TLR4	NM_138554.2	153.91	79.09	98.1	98.36	1.57	0.6	0.89	0.65	-1.41	2.71
LTB4R	NM_181657.3	40.45	18.12	28.62	21.77	1.41	0.61	0.89	0.50	-1.07	2.07
IL1B	NM_000576.2	2852.73	940.15	1984.19	1680.84	1.44	0.63	0.89	0.52	-1.20	2.24
LTB	NM_002341.1	138.52	114.47	94.92	89.26	1.46	0.64	0.89	0.55	-1.47	2.57
IL1RN	NM_173842.1	2080.16	724.15	1481.54	1325.57	1.4	0.66	0.89	0.49	-1.33	2.31
DEFA1	NM_004084.2	78.53	112.37	45.25	78	1.74	0.67	0.89	0.80	-2.88	4.47
RIPK1	NM_003804.3	67.74	31.09	53.54	34.69	1.27	0.68	0.89	0.34	-1.02	1.70
IL1A	NM_000575.3	32.53	23.47	26.12	15.89	1.25	0.69	0.89	0.32	-1.06	1.69
MX2	NM_002463.1	168.31	157.91	135.75	91.13	1.24	0.72	0.89	0.31	-1.27	1.89
TLR5	NM_003268.3	27.79	13.6	23.37	13.64	1.19	0.74	0.89	0.25	-1.00	1.50
CXCL1	NM_001511.1	296.6	110.69	255.97	147.24	1.16	0.77	0.89	0.21	-0.99	1.41
TNFAIP3	NM_006290.2	334.59	197.43	266.42	276.53	1.26	0.79	0.89	0.33	-1.81	2.47
RAC1	NM_198829.1	46.07	26.47	42.93	11.79	1.07	0.79	0.89	0.10	-0.65	0.85
CREB1	NM_134442.2	36.5	16.62	30.91	27.74	1.18	0.82	0.90	0.24	-1.60	2.08
BCL6	NM_001706.2	408.76	207.84	361.15	256.35	1.13	0.84	0.90	0.18	-1.31	1.67
IRF7	NM_001572.3	67.46	120.85	58.42	46.5	1.15	0.84	0.90	0.21	-2.05	2.47

CXCL2	NM_002089.3	70.55	65.76	67.12	24.65	1.05	0.89	0.93	0.07	-1.04	1.18
PTGS2	NM_000963.1	845.43	315.7	793.1	811.28	1.07	0.94	0.96	0.09	-1.98	2.16
MAFF	NM_001161572.1	32.18	27.02	30.91	27.74	1.04	0.96	0.97	0.06	-1.89	2.00
IL18RAP	NM_003853.2	53.86	53.33	103.19	1.2	-1.92	0.1	0.82	-0.94	-1.82	-0.05
ALOX12	NM_000697.1	20.46	97.79	46.73	20.23	-2.28	0.14	0.82	-1.19	-5.55	3.17
NOX1	NM_007052.4	20.12	45.54	115.36	123.62	-5.73	0.17	0.82	-2.52	-5.47	0.43
DDIT3	NM_004083.4	91.44	36.85	114.47	15.52	-1.25	0.19	0.82	-0.32	-0.78	0.13
TNFSF14	NM_003807.2	21.46	10.32	48.17	23.09	-2.24	0.2	0.82	-1.17	-2.22	-0.12
NOD2	NM_022162.1	39.49	24.6	65.57	21.81	-1.66	0.2	0.82	-0.73	-1.60	0.14
IL1RAP	NM_002182.2	95.81	31.53	118	21.11	-1.23	0.3	0.82	-0.30	-0.76	0.16
IFIT3	NM_001031683.2	26.47	208.35	40.47	14.63	-1.53	0.4	0.82	-0.61	-7.69	6.46
MAP3K1	NM_005921.1	32.48	17.68	46.73	27.28	-1.44	0.52	0.84	-0.52	-1.79	0.74
C3AR1	NM_004054.2	23.39	20.01	28.62	7.86	-1.22	0.53	0.84	-0.29	-1.23	0.65
HDAC4	NM_006037.3	20.81	8.58	32	23.51	-1.54	0.54	0.84	-0.62	-2.14	0.89
IL8	NM_000584.2	7717.46	5396.95	12282.14	11680.32	-1.59	0.58	0.87	-0.67	-2.67	1.33

RPS6KA5	NM_004755.2	39.39	25.53	49.57	25.97	-1.26	0.65	0.89	-0.33	-1.53	0.87
ATF2	NM_001880.2	27.87	10.35	36.95	36.72	-1.33	0.73	0.89	-0.41	-2.42	1.61
MEF2A	NM_005587.2	56.76	38.31	62.37	16.17	-1.1	0.73	0.89	-0.14	-0.93	0.66
AREG	NM_001657.2	33.2	11.79	37.86	17.51	-1.14	0.75	0.89	-0.19	-1.17	0.79
MAFK	NM_002360.3	22.08	17.29	26.12	15.89	-1.18	0.76	0.89	-0.24	-1.65	1.16
HSPB1	NM_001540.3	38.8	147.09	45.25	17.38	-1.17	0.76	0.89	-0.22	-3.70	3.25
BCL2L1	NM_138578.1	25.63	76.49	33.05	33.8	-1.29	0.77	0.89	-0.37	-3.73	3.00
CCL4	NM_002984.2	73.02	64	87.04	68.27	-1.19	0.8	0.89	-0.25	-2.01	1.50
CCL3	NM_002983.2	76.27	103.25	97.75	188.64	-1.28	0.85	0.90	-0.36	-4.40	3.69
STAT2	NM_005419.2	69.98	131.78	74.35	38.96	-1.06	0.9	0.93	-0.09	-2.07	1.90
MKNK1	NM_003684.3	120.16	44.78	120.29	101.96	-1	1	1.00	0.00	-1.73	1.73