

Supplementary Materials: Expression of Genes Involved in Stress, Toxicity, Inflammation, and Autoimmunity and Heavy Metals in Human Blood: A Pilot Study

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Table S1. SaBiosciences PCR Array Inflammatory Response and Autoimmunity Genes with Detectable Data for All 24 Participants (PAHS-077Z).

Position	Unigene	Refseq	Symbol	Description
A01	Hs.478588	NM_001706	<i>BCL6</i>	B-cell CLL/lymphoma 6
A03	Hs.591148	NM_004054	<i>C3AR1</i>	Complement component 3a receptor 1
B03	Hs.75703	NM_002984	<i>CCL4</i>	Chemokine (C-C motif) ligand 4
B04	Hs.514821	NM_00985	<i>CCL5</i>	Chemokine (C-C motif) ligand 5
B07	Hs.301921	NM_001295	<i>CCR1</i>	Chemokine (C-C motif) receptor 1
B08	Hs.705362	NM_001123396	<i>CCR2</i>	Chemokine (C-C motif) receptor 2
B09	Hs.506190	NM_001837	<i>CCR3</i>	Chemokine (C-C motif) receptor 3
B10	Hs.184926	NM_005508	<i>CCR4</i>	Chemokine (C-C motif) receptor 4
B11	Hs.370036	NM_001838	<i>CCR7</i>	Chemokine (C-C motif) receptor 7
B12	Hs.163867	NM_000591	<i>CD14</i>	CD14 molecule
C01	Hs.472860	NM_001250	<i>CD40</i>	CD40 molecule, TNF receptor superfamily member 5
C02	Hs.592244	NM_000074	<i>CD40LG</i>	CD40 ligand
C03	Hs.719041	NM_005194	<i>CEBPB</i>	CCAAT/enhancer binding protein (C/EBP), beta
C05	Hs.173894	NM_000757	<i>CSF1</i>	Colony stimulating factor 1 (macrophage)
C06	Hs.708652	NM_001511	<i>CXCL1</i>	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
C08	Hs.75765	NM_002089	<i>CXCL2</i>	Chemokine (C-X-C motif) ligand 2
C10	Hs.89714	NM_002994	<i>CXCL5</i>	Chemokine (C-X-C motif) ligand 5
D01	Hs.194778	NM_000634	<i>CXCR1</i>	Chemokine (C-X-C motif) receptor 1
D02	Hs.846	NM_001557	<i>CXCR2</i>	Chemokine (C-X-C motif) receptor 2
D03	Hs.593413	NM_003467	<i>CXCR4</i>	Chemokine (C-X-C motif) receptor 4
D04	Hs.2007	NM_000639	<i>FASLG</i>	Fas ligand (TNF superfamily, member 6)
D05	Hs.25647	NM_005252	<i>FOS</i>	FBJ murine osteosarcoma viral oncogene homolog
D08	Hs.654593	NM_000628	<i>IL10RB</i>	Interleukin 10 receptor, beta
D09	Hs.602618	NM_000585	<i>IL15</i>	Interleukin 15
D11	Hs.83077	NM_001562	<i>IL18</i>	Interleukin 18 (interferon-gamma-inducing factor)
E01	Hs.126256	NM_000576	<i>IL1B</i>	Interleukin 1, beta
E02	Hs.701982	NM_000877	<i>IL1R1</i>	Interleukin 1 receptor, type I
E03	Hs.478673	NM_002182	<i>IL1RAP</i>	Interleukin 1 receptor accessory protein
E04	Hs.81134	NM_000577	<i>IL1RN</i>	Interleukin 1 receptor antagonist
E06	Hs.591803	NM_016584	<i>IL23A</i>	Interleukin 23, alpha subunit p19
E10	Hs.135087	NM_000565	<i>IL6R</i>	Interleukin 6 receptor
E11	Hs.624	NM_000584	<i>IL8</i>	Interleukin 8
F01	Hs.375957	NM_000211	<i>ITGB2</i>	Integrin, beta 2 (complement component 3 receptor 3 and 4 subunit)
F04	Hs.376208	NM_002341	<i>LTB</i>	Lymphotoxin beta (TNF superfamily, member 3)
F05	Hs.726603	NM_015364	<i>LY96</i>	Lymphocyte antigen 96
F06	Hs.82116	NM_002468	<i>MYD88</i>	Myeloid differentiation primary response gene (88)
F07	Hs.618430	NM_003998	<i>NFKB1</i>	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
F09	Hs.122926	NM_000176	<i>NR3C1</i>	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
F10	Hs.196384	NM_000963	<i>PTGS2</i>	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
F11	Hs.103755	NM_003821	<i>RIPK2</i>	Receptor-interacting serine-threonine kinase 2
G01	Hs.537126	NM_001039661	<i>TIRAP</i>	Toll-interleukin 1 receptor (TIR) domain containing adaptor protein
G02	Hs.621817	NM_003263	<i>TLR1</i>	Toll-like receptor 1
G03	Hs.519033	NM_003264	<i>TLR2</i>	Toll-like receptor 2
G05	Hs.174312	NM_138554	<i>TLR4</i>	Toll-like receptor 4
G06	Hs.604542	NM_003268	<i>TLR5</i>	Toll-like receptor 5

Table S1. Cont.

Position	Unigene	Refseq	Symbol	Description
G07	Hs.743572	NM_006068	<i>TLR6</i>	Toll-like receptor 6
G08	Hs.659215	NM_016562	<i>TLR7</i>	Toll-like receptor 7
G09	Hs.87968	NM_017442	<i>TLR9</i>	Toll-like receptor 9
G10	Hs.241570	NM_000594	<i>TNF</i>	Tumor necrosis factor
G11	Hs.129708	NM_003807	<i>TNFSF14</i>	Tumor necrosis factor (ligand) superfamily, member 14
G12	Hs.368527	NM_019009	<i>TOLLIP</i>	Toll interacting protein

Table S2. SaBiosciences PCR Array Human Stress and Toxicity Genes with Detectable Data for All 24 Participants (PAHS-003Z).

Position	Unigene	Refseq	Symbol	Description
A01	Hs.441047	NM_001124	<i>ADM</i>	Adrenomedullin
A02	Hs.521212	NM_001628	<i>AKR1B1</i>	Aldo-keto reductase family 1, member B1 (aldose reductase)
A07	Hs.496487	NM_001675	<i>ATF4</i>	Activating transcription factor 4 (tax-responsive enhancer element B67)
A09	Hs.42853	NM_004381	<i>ATF6B</i>	Activating transcription factor 6 beta
A11	Hs.486063	NM_004849	<i>ATG5</i>	ATG5 autophagy related 5 homolog (S. cerevisiae)
A12	Hs.740389	NM_006395	<i>ATG7</i>	ATG7 autophagy related 7 homolog (S. cerevisiae)
B01	Hs.367437	NM_000051	<i>ATM</i>	Ataxia telangiectasia mutated
B03	Hs.467020	NM_014417	<i>BBC3</i>	BCL2 binding component 3
B04	Hs.716464	NM_003766	<i>BECN1</i>	Beclin 1, autophagy related
B05	Hs.591054	NM_001196	<i>BID</i>	BH3 interacting domain death agonist
B06	Hs.131226	NM_004331	<i>BNIP3L</i>	BCL2/adenovirus E1B 19kDa interacting protein 3-like
B08	Hs.515162	NM_004343	<i>CALR</i>	Calreticulin
B09	Hs.2490	NM_033292	<i>CASP1</i>	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
B12	Hs.732576	NM_000389	<i>CDKN1A</i>	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
C06	Hs.505777	NM_004083	<i>DDIT3</i>	DNA-damage-inducible transcript 3
C07	Hs.59214	NM_006260	<i>DNAJC3</i>	DnaJ (Hsp40) homolog, subfamily C, member 3
C10	Hs.244139	NM_000043	<i>FAS</i>	Fas (TNF receptor superfamily, member 6)
C11	Hs.712676	NM_002032	<i>FTH1</i>	Ferritin, heavy polypeptide 1
D03	Hs.315562	NM_002061	<i>GCLM</i>	Glutamate-cysteine ligase, modifier subunit
D04	Hs.444356	NM_002086	<i>GRB2</i>	Growth factor receptor-bound protein 2
D06	Hs.523836	NM_000852	<i>GSTP1</i>	Glutathione S-transferase pi 1
D07	Hs.517581	NM_002133	<i>HMOX1</i>	Heme oxygenase (decycling) 1
D08	Hs.525600	NM_001017963	<i>HSP90AA1</i>	Heat shock protein 90kDa alpha (cytosolic), class A member 1
D09	Hs.192374	NM_003299	<i>HSP90B1</i>	Heat shock protein 90kDa beta (Grp94), member 1
D10	Hs.90093	NM_002154	<i>HSPA4</i>	Heat shock 70kDa protein 4
E04	Hs.126256	NM_000576	<i>IL1B</i>	Interleukin 1, beta
E07	Hs.2795	NM_005566	<i>LDHA</i>	Lactate dehydrogenase A
E08	Hs.632486	NM_021960	<i>MCL1</i>	Myeloid cell leukemia sequence 1 (BCL2-related)
E09	Hs.297413	NM_004994	<i>MMP9</i>	Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
E10	Hs.192649	NM_005590	<i>MRE11A</i>	MRE11 meiotic recombination 11 homolog A (S. cerevisiae)
E11	Hs.492208	NM_002485	<i>NBN</i>	Nibrin
E12	Hs.371987	NM_006599	<i>NFAT5</i>	Nuclear factor of activated T-cells 5, tonicity-responsive
F02	Hs.177766	NM_001618	<i>PARP1</i>	Poly (ADP-ribose) polymerase 1
F07	Hs.655354	NM_004584	<i>RAD9A</i>	RAD9 homolog A (S. pombe)
F08	Hs.519842	NM_003804	<i>RIPK1</i>	Receptor (TNFRSF)-interacting serine-threonine kinase 1
F10	Hs.473721	NM_006516	<i>SLC2A1</i>	Solute carrier family 2 (facilitated glucose transporter), member 1
F12	Hs.724025	NM_003900	<i>SQSTM1</i>	Sequestosome 1
G01	Hs.174312	NM_138554	<i>TLR4</i>	Toll-like receptor 4
G03	Hs.213467	NM_003844	<i>TNFRSF10A</i>	Tumor necrosis factor receptor superfamily, member 10a
G04	Hs.521456	NM_003842	<i>TNFRSF10B</i>	Tumor necrosis factor receptor superfamily, member 10b
G05	Hs.279594	NM_001065	<i>TNFRSF1A</i>	Tumor necrosis factor receptor superfamily, member 1A
G06	Hs.740601	NM_000546	<i>TP53</i>	Tumor protein p53
G07	Hs.435136	NM_003329	<i>TXN</i>	Thioredoxin
G08	Hs.134406	NM_017853	<i>TXNL4B</i>	Thioredoxin-like 4B
G09	Hs.654922	NM_003330	<i>TXNRD1</i>	Thioredoxin reductase 1
G10	Hs.47061	NM_003565	<i>ULK1</i>	Unc-51-like kinase 1 (C. elegans)
G11	Hs.73793	NM_003376	<i>VEGFA</i>	Vascular endothelial growth factor A