

Supplementary Table 1: Description of weakly or non- replicable parameters.

Parameter	# of studies	Association Described		
		POS.	NEG.	NS*
Cell Composition				
CD3+ (28, 45, 50, 90)	4			
CD8+ (28, 37, 45, 47, 48, 50, 92)	7			
Lymphocytes (8, 9, 18, 26-28, 33, 34, 40, 50, 89, 94, 95)	13			
Eosinophils (8-10, 26, 27, 40, 89)	7			
Macrophages (5, 8, 16-18, 26, 33, 40, 47, 62, 88, 89)	11			
Cytokines, Chemokines, Growth Factors				
IL-1RA (8, 63)	2			
IL-1b (8, 29, 57, 59)	4			
IL-2 (29, 47, 57, 99)	4			
IL-12 (56, 57, 59, 75)	3			
IL-13 (63, 100)	2			
IL-17 (29, 59, 63)	3			
IL-23 (29, 59)	2			
TGF-b (8, 12, 17, 29, 47, 57, 59, 98, 100, 102-105)	12			
HGF (47, 59, 104)	2			
GM-CSF (57, 59)	2			
PDGF (13, 59, 103)	3			
VEGF (59, 90, 98, 106)	4			
CCL19 (46, 107)	2			
CCL22 (45, 46, 107)	2			

Parameter	# of studies	Association Described		
		POS.	NEG.	NS*
Innate Immune Components				
B-Defensins (5, 67, 91)	3			
Eosinophil Cationic Protein (25, 26, 93)	3			
Mannose -Binding Lectin (96, 97)	2			
C-reactive Protein (31, 75, 98)	3			
Complement C3 (75, 76)	2			
Lysozyme (69, 91)	2			
Matrix Metalloproteinases				
MMP-2 (6, 73, 82)	3			
MMP-8 (59, 82)	2			
TIMP-1 (6, 15, 59, 82)	4			
Oxidative Stress				
Peroxiredoxin II (75, 76)	2			
Iron (22, 101)	2			
Lipid Peroxidation (74, 84)	2			
Miscellaneous				
α 1-Acid glycoprotein 2 (75, 76)	2			
α 2-HS-glycoprotein (75, 76)	2			
Apolipoprotein A1 (75, 76)	2			
Leucine-rich α 2 glycoprotein (75, 76)	2			
α 1-beta glycoprotein (75, 76)	2			
α 1 anti-chymotrypsin (75, 76)	2			
Haptoglobin (75, 76)	2			
Albumin (25, 26)	2			
Fibronectin (57, 59)	2			
Heat Shock Protein 70 (76, 108)	2			

Supplementary Table 2: Description of parameters only examined in one study.

Parameter	Association Described		
	POS.	NEG.	NS*
Cell Composition			
CD4+HLA-DR+ (28)			
CD8+HLA-DR+ (28)			
CD4+CD45+ (28)			
CD8+CD45+ (28)			
CD4+CD25+ (28)			
CD19+ (28)			
NK Cells (28)			
Cytokines, Chemokines, Growth Factors			
IL-2R (16)			
IL-5 (57)			
IL-15 (11)			
IL-16 (16)			
GRO-a (59)			
COX 2 (59)			
FGF-b (59)			
EGF (59)			
PIGF (59)			
SDF-1 (59)			
RAGE (59)			
EGF (59)			
PIGF (59)			
CCL3 (107)			
CCL20 (107)			
CCL21 (46)			
CCL26 (107)			
ITAC/CXCL11 (65)			
sICAM-1 (23)			
VCAM-1 (23)			
IGF-1 (109)			
IGFBP-2 (109)			
IGFBP-3 (109)			
T cell granzyme B (110)			
Innate Immune Components			
SP-B (52)			
SP-C (59)			
SP-D (74)			
Alpha-1-Antitrypsin (14)			
Elafin (5)			
Serine Protease (73)			

Parameter	Association Described		
	POS.	NEG.	NS*
Miscellaneous			
Histatin (68)			
Calgranulin A (68)			
Phosphatidylcholine (74)			
Phosphatidylglycerol (PG) (74)			
Phosphatidylinositol (74)			
Sphingomyelin (SM) (74)			
Lysophosphatidylcholine (74)			
Osteopontin (59)			
Ascorbate (26)			
Urate (26)			
Heat Shock Protein 27 (108)			
Heat Shock Protein 60 (108)			
Anti-Heat Shock Protein 27 (108)			
Anti-Heat Shock Protein 70 (108)			
Mucin-5AC (76)			
Mucin-16 (76)			
Mucin-1 Isoform (76)			
Mucin-4 Isoform (76)			
Annexin A3 (76)			
Myeloblastin (76)			
Prominin-1 (76)			
Olfactomedin-4 (76)			
Calmodulin (76)			
IgGfc binding protein (76)			
Alpha-Actinin-1 (76)			
Catalase (76)			
Transcobalamin-1 (76)			
Carbonic Anhydrase 1 (76)			
Dipeptidyl Peptidase 1 (76)			
Cathepsin B (76)			
Tetraspanin-1 (76)			
Peptidoglycan recognition protein 1 (76)			
Coronin-1A (76)			
Desmoglein (76)			
Glutathione S-transferase A1 (76)			
Glucose-6-Phosphate Isomerase (76)			
Histone H2B, H4 (76)			
Protein S100 A9,A10,A12,P (76)			
Trypsin- 1 (76)			

Cathelicidin/hCA/ LL-37 (5)			
Neutrophil Collagenase (76)			
Chymotrypsin-like elastase 3A (76)			
Gelatinase-Associated Lipcalin (76)			
Complement C9 (76)			
Complement C5 (76)			
Complement C8 (76)			
Complement C7 (76)			
Oxidative Stress			
Thioredoxin (76)			
Metallothionein (112)			

Nitrogen Dioxide (111)			
Inter-alpha Trypsin Inhibitor H1 (76)			
Carboxypeptidase A1, B (76)			
Pancreatic Triacylglycerol Lipase (76)			
Carboxyl Ester Lipase Precursor (76)			
Chymotrypsinogen B, B2 (76)			
chymotrypsin-like elastase 2A, 3B (76)			
Moesin (76)			
N-acetylmuramoyl alanine amidase (76)			
Lithostathine-1-alpha (76)			
Protease serine 2B (76)			
Fibulin-1 B (76)			
40S, 60S Ribosomal Protein (76)			
UV Excision Repair Protein RAD23 (76)			
Serum Amyloid Protein A (76)			

*Non-significant

Supplemental Text:

In addition, BAL parameters that were moderately replicable yet did not have a significant association with BOS include: CD4+ T-cells, IL-4, IL-10, INF γ , TNF α , CCL17, and TIMP-2. (6, 8, 28, 38, 45-47, 50, 56, 57, 59, 62, 82, 88, 99, 100, 107)

References: