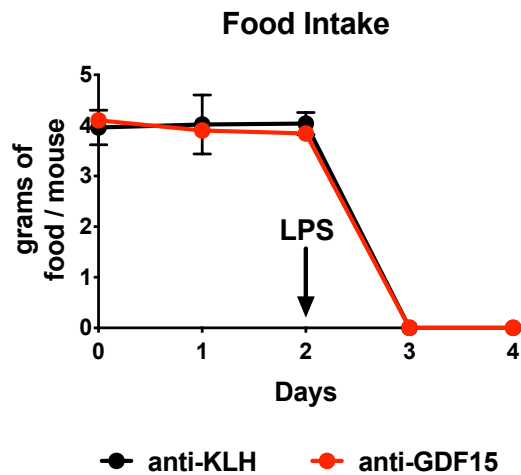
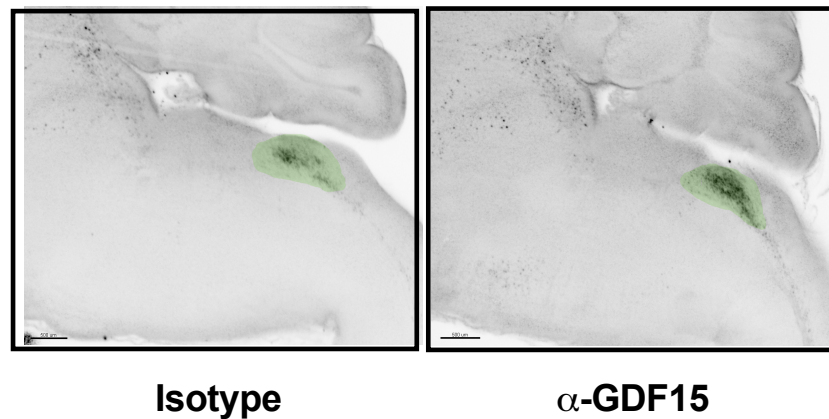
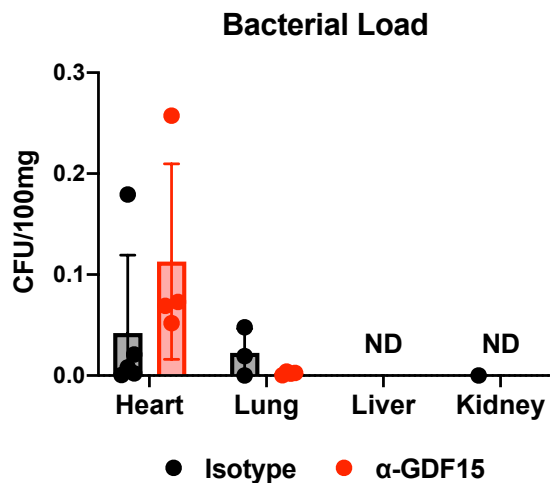
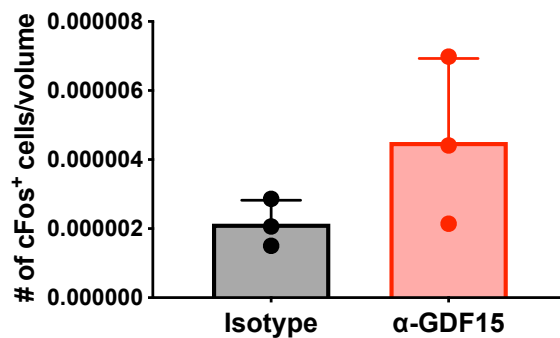
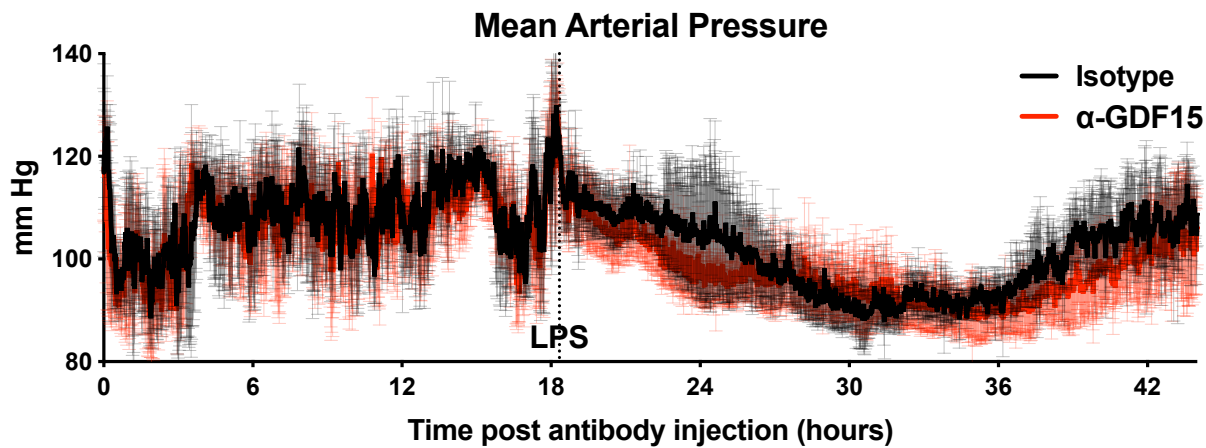
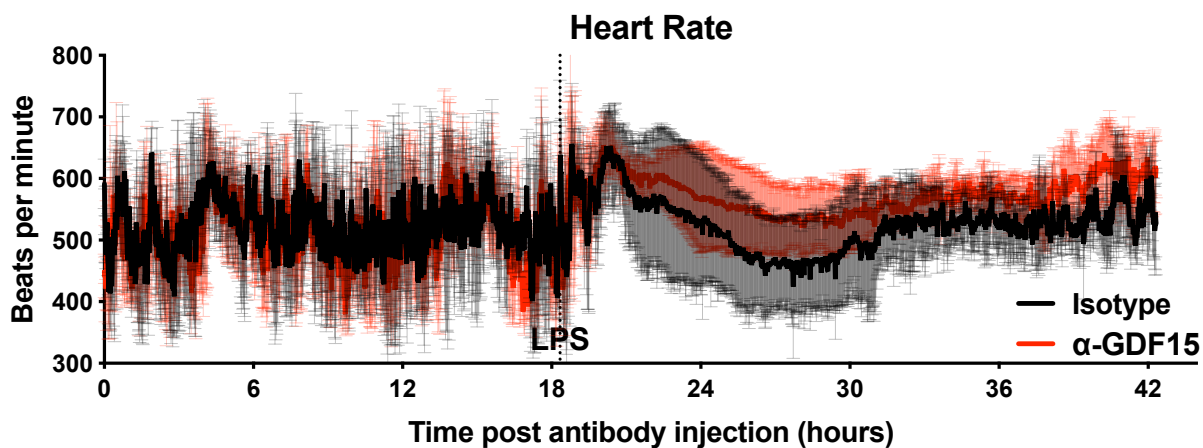
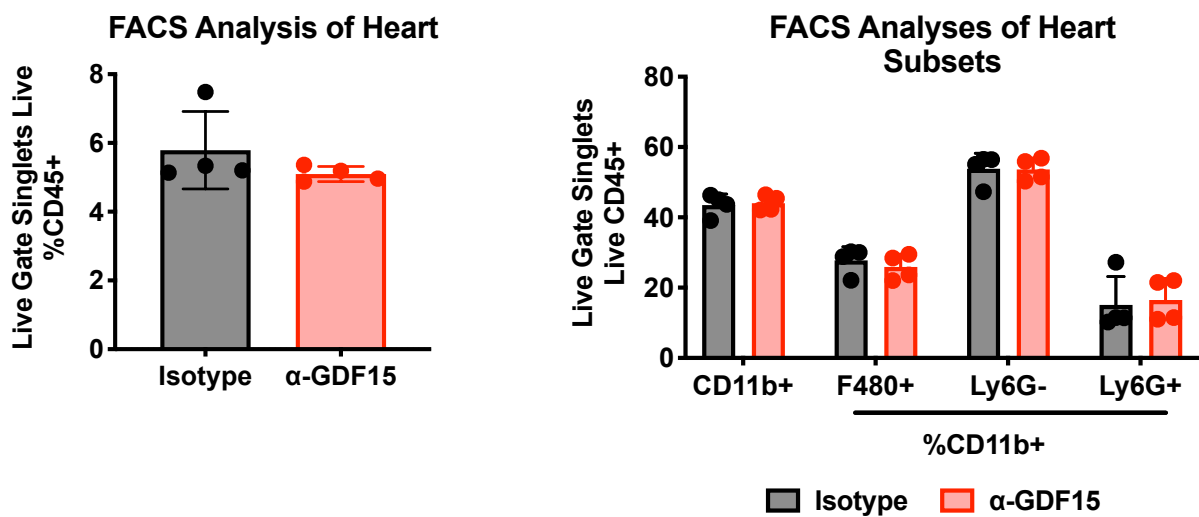


Figure S1

A**B****C**

Nucleus of the Solitary Tract Activation

**Figure S2**

A**B****C****Figure S3**

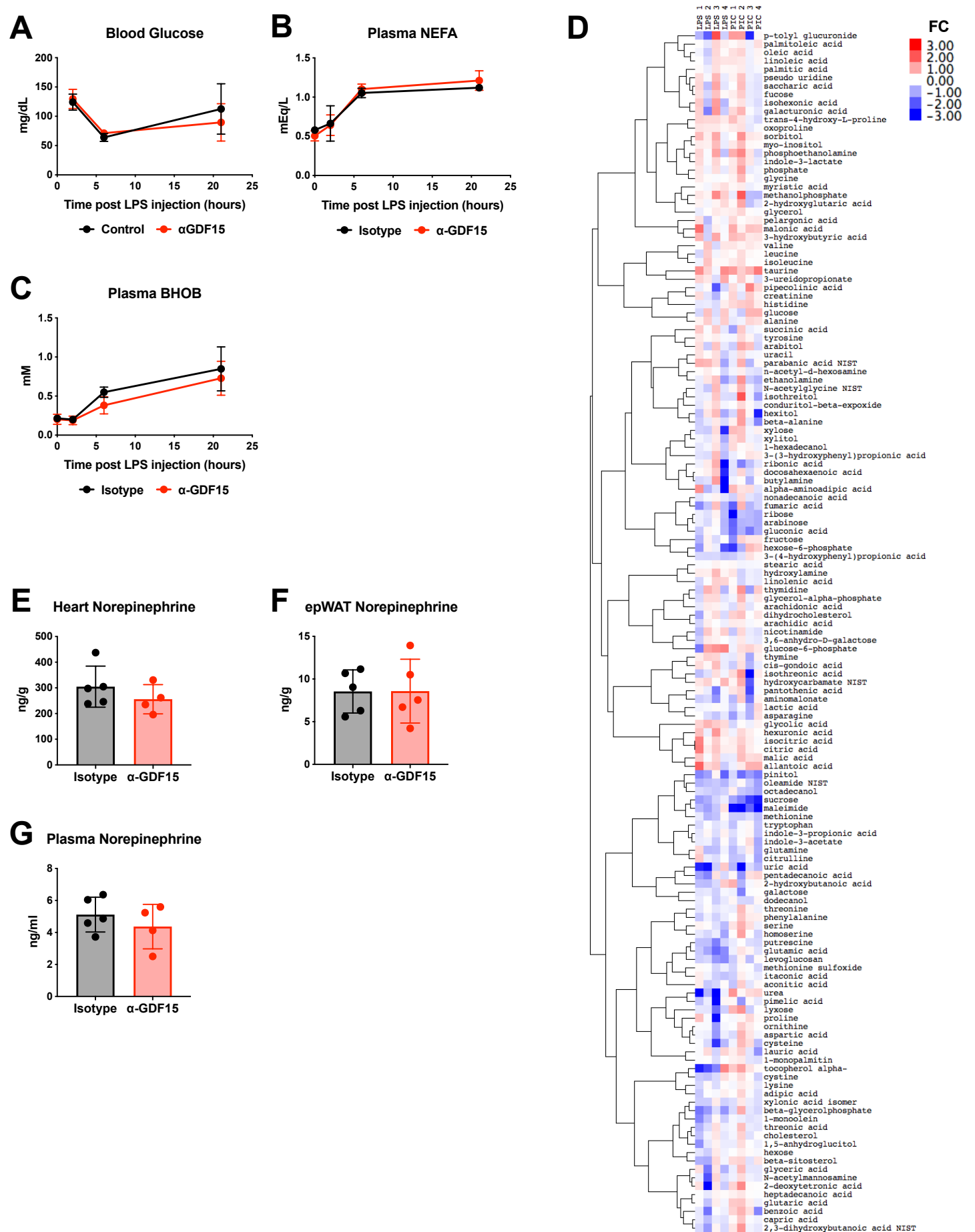


Figure S4

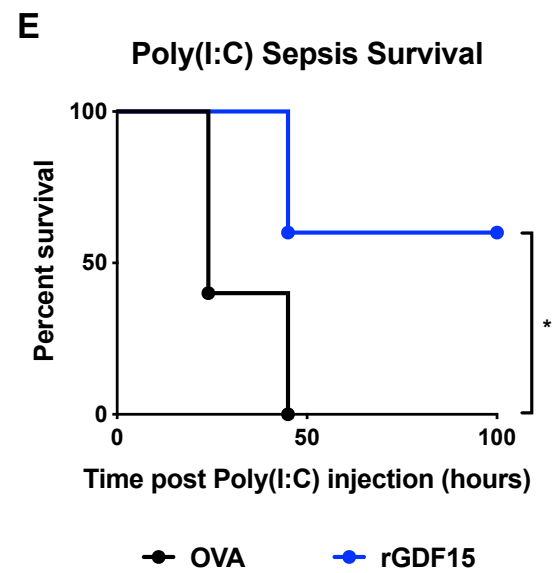
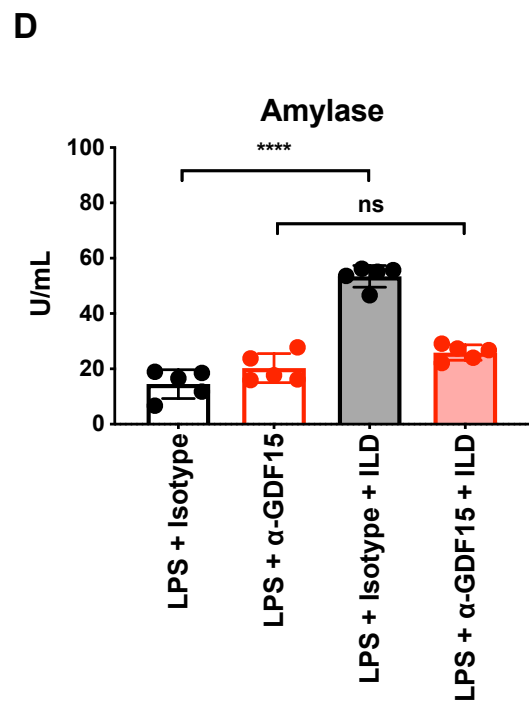
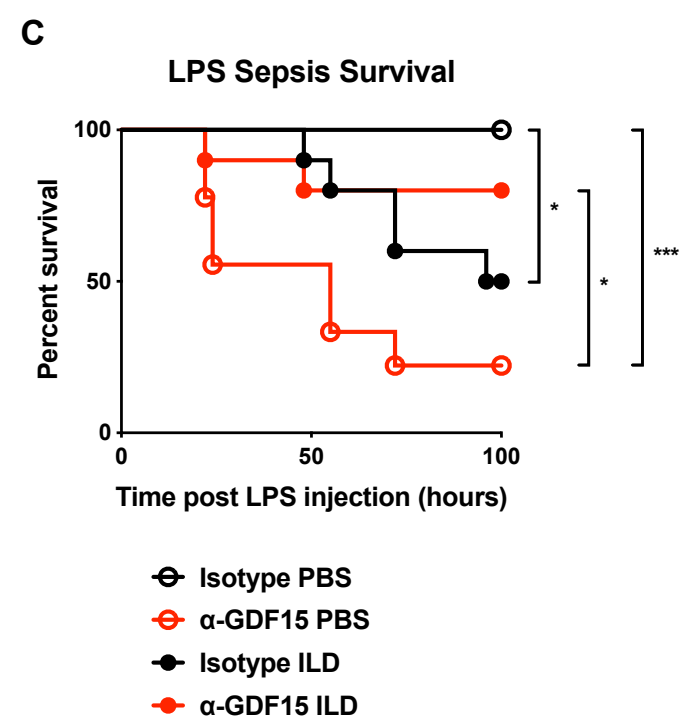
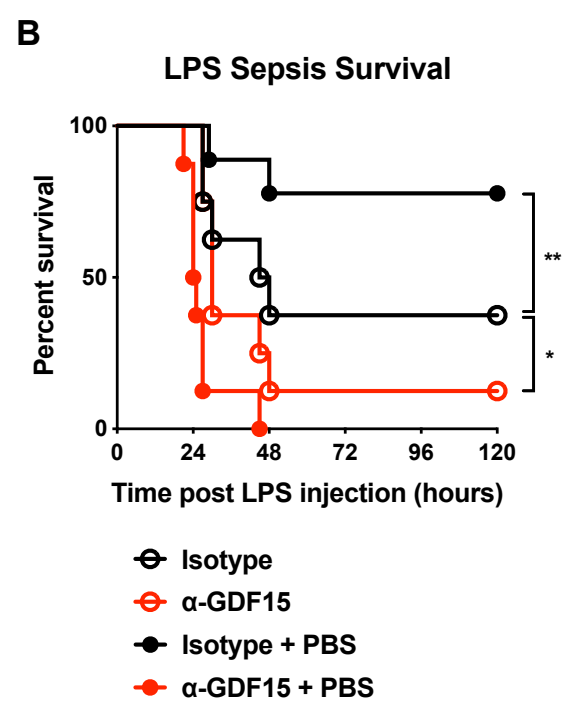
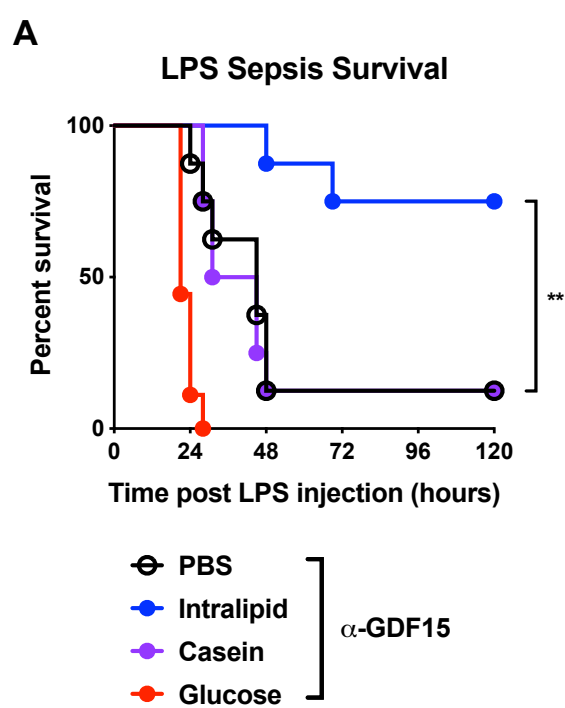


Figure S5

Supplemental Table 1. PMIDs utilized for generating Supplemental Figure 1A

Disease Area	Specific Disease	PMID
Cancer	Metastatic castration-resistant prostate cancer	28903376
Cancer	Bone metastases	28314325
Cancer	Cancer development in T2D patients	27756762
Cancer	Melanoma	27705749
Cancer	Non-small cell lung cancer	27569226
Cancer	Bone metastases	27069189
Cancer	Colorectal cancer	26990020
Cancer	Prostate cancer	26856686
Cancer	Epithelial ovarian cancer	26781874
Cancer	Colorectal cancer	26026393
Cancer	Barrett's oesophagus and oesophageal adenocarcinoma	25867265
Cancer	Pancreatic ductal adenocarcinoma	25106741
Cancer	Colorectal cancer	24565956
Cancer	Uterine sarcoma	24401984
Cancer	Esophageal squamous cell carcinoma	24383865
Cancer	Pancreatic cancer	23383312
Cancer	Oral squamous cell carcinoma	22341306
Cancer	Adenomatous colonic polyposis	22144502
Cancer	Metastases in uveal melanoma	21881845
Cancer	Pancreatic cancer	21757969
Cancer	Ovarian cancer	20576287
Cancer	Melanoma	20357814
Cancer	Prostate cancer	20215826
Cancer	Colorectal cancer metastasis	19924834
Cancer	Glioblastoma	19521960
Cancer	HPV cervical cancer	18398830
Cancer	Glioblastoma	18398573
Cancer	Prostate cancer bone metastases	17372249
Cancer	Prostate cancer	16614113
Cancer	Resectable pancreatic adenocarcinoma	16428484
Cancer	Prostate cancer	16397079
Cancer	Pancreatic adenocarcinoma	15073115
Cancer	Prostate cancer	12671711
Cancer	metastatic prostate, breast, and colorectal cancers	12624183
Cancer	Prostate cancer	11507037
Cancer	Colonic neoplasias	28569401
Cancer	Gastric cancer	28239815
Cancer	Pancreatic cancer	29489701
Cancer	Prostate cancer	25767870
Cancer	Osteogenic prostate cancer	25527621
Cancer	Pancreatic cancer	25464937
Cancer	Multiple myeloma	25052873
Cancer	Multiple myeloma	24216602

Cancer	Oral leukoplakia and oral squamous cell carcinoma	23710769
Cancer	Refractory anemia with ring-sideroblasts	19036111
Cancer	Malignant melanoma	18754039
Cancer	Prostate cancer	17982462
Cancer	Melanoma	15900300
Cancer	Colorectal carcinoma	12855642
Cancer	Cancer cachexia	26672741
Cardiovascular	Stroke	28526273
Cardiovascular	Left ventricular hypertrophy (hypertension associated)	29035099
Cardiovascular	Chronic heart failure	28958347
Cardiovascular	Peripheral artery	28855167
Cardiovascular	Peripheral artery	28798540
Cardiovascular	Major bleeding in atrial fibrillation	28760218
Cardiovascular	Acute myocardial infarction	28683166
Cardiovascular	Major bleeding after acute coronary syndrome	28411246
Cardiovascular	Atherosclerosis progression	28389123
Cardiovascular	Coronary artery in COPD patients	28245821
Cardiovascular	Cardiovascular	28062617
Cardiovascular	Spontaneous MI, CVD mortality	27932413
Cardiovascular	Heart failure with reduced or preserved EF	27838133
Cardiovascular	Stable coronary heart morbidity and mortality	27811204
Cardiovascular	Acute heart failure	27788390
Cardiovascular	Cardiovascular in T2D patients	27510384
Cardiovascular	Cardiovascular in T2D patients	27456261
Cardiovascular	Cardiovascular events in patients with stable coronary heart	27197673
Cardiovascular	Acute coronary mortality and subsequent MI	27154403
Cardiovascular	Coronary artery CVD mortality	27056183
Cardiovascular	Coronary artery	26996787
Cardiovascular	Heart failure with reduced or preserved EF	26497848
Cardiovascular	Major bleeding, spontaneous MI, stroke, CV events in acute cor	26417057
Cardiovascular	Cardiogenic shock	24903195
Cardiovascular	MI mortality	24521768
Cardiovascular	Acute ischemic stroke	22231869
Cardiovascular	Tako-Tsubo cardiomyopathy	22119264
Cardiovascular	Acute coronary syndrome prognosis	20966402
Cardiovascular	MI prognosis	17977844
Cardiovascular	Chronic heart failure	17825714
Cardiovascular	Acute coronary syndrome prognosis	17283261
Cardiovascular	takotsubo cardiomyopathy	24681016
Cardiovascular	Left ventricular hypertrophy	24200688
Cardiovascular	Acute coronary syndrome	23818444
Cardiovascular	Left ventricular hypertrophy (hypertension associated)	23071585
Cardiovascular	MI	21516086
Cardiovascular	Acute coronary syndrome prognosis	17848615
Cardiovascular	Cardiovascular events	12090982

Cardiovascular	Pulmonary arterial hypertension	21548946
Cardiovascular	Cardiovascular events in patients with mild to moderate corona	22688311
Endocrinology	Impaired fasting glucose	25541611
ENT	Nasal polyps	26795264
Gastrointestinal	Chronic hepatitis, compensated liver cirrhosis, decompensated	27728964
Gastrointestinal	Liver cirrhosis and hepatocellular carcinoma	25996938
Gastrointestinal	Advanced fibrosis in NAFLD	28898507
Genetics	Mitochondrial	26867126
Genetics	Erythropoietic protoporphyria	28185024
Genetics	Mitochondrial	25446397
Geriatrics	Aging	29955888
Hematologic	Anaemia of chronic , mixed type anaemia (ACD/IDA)	19863534
Hematologic	Sickle cell	25065856
Hematologic	B-thalassemia	24867648
Hematologic	Thalassemia	17721544
Hematologic	Anemia of unknown etiology	21535154
Hematologic	Pulmonary embolism	18263797
Hematologic	Congenital dyserythropoietic anemia	18824595
Neuropsychiatric	Parkinson	28787735
Neuropsychiatric	Cognitive impairment, no dementia	27537582
Neuropsychiatric	Parkinson's	26938614
Neuropsychiatric	Psychosis	28801589
Obstetrics	Hyperemesis gravidarum	29563502
Obstetrics	Pregnancy	11134143
Pulmonary/Critical	Acute cholera infection	17307946
Pulmonary/Critical	Acute exacerbation of COPD	26243260
Pulmonary/Critical	Acute exacerbation of COPD	25820390
Pulmonary/Critical	COPD exacerbation and mortality	28298399
Pulmonary/Critical	Idiopathic pulmonary arterial hypertension	18565955
Pulmonary/Critical	Multiple inflammatory (HF, pneumonia, COPD, renal , sepsis)	25850080
Pulmonary/Critical	ICU-acquired weakness	25516419
Renal	Diabetic nephropathy	28341782
Renal	CKD progression	28159780
Renal	CKD mortality	21940482
Rheumatic	Systemic scleroderma	28872977
Rheumatic	Rheumatoid arthritis	17328047
Rheumatic	Rheumatoid arthritis	27679935
Rheumatic	Behcet's	27206990
Rheumatologic	Temperomandibular joint osteoarthritis	25278075
Rheumatologic	Osteoarthritis	19011694
Rheumatologic	Systemic lupus erythmatosus	27211902

Supplemental Table 2. Patient characteristics, Related to Figure 1 and Supplemental Figure 1

Lupus sample

AGE	GENDER
61	M
50	F
60	F
44	M
49	M
40	F
38	F
26	F
41	F
54	F

Autoimmune Hepatitis

AGE	GENDER
59	F
66	F
61	F
55	F
50	F
81	F
67	F
71	F
54	F
60	M

Healthy Control

AGE	GENDER
43	F
53	F
41	F
35	M
52	F
39	F
40	F
25	F
47	F
54	F
50	F
36	M
29	F
33	M
27	M
23	F
69	F
79	F
75	M
65	M
76	F

Septic Shock/Severe Sepsis

AGE	GENDER	PATHOGEN	SOURCE
52	M	Citrobacter	Sputum
55	F	E Coli	Blood/Urine
57	M	MRSA/C Diff	Blood/Stool
50	M	Proteus/VRE	Blood/Blood
52	M	Klebs	Blood/Urine
63	M	Morexella	Sputum
53	M	PsA	Sputum
38	F	MSSA	Sputum
55	F	E Coli	Blood/Urine
73	F	Proteus	Blood
82	F	Klebs	Blood
79	F	E Coli	Blood/Urine
70	F	E Coli	Chole/Urine
71	M	Rhino	DFA
48	M	Paraflu	DFA
83	F	FLU	DFA
78	M	FLU	DFA
55	F	FLU	DFA
54	M	FLU	DFA
27	M	Rhino	DFA
53	M	hMPV	DFA
47	F	FLU/S Pneun	DFA/U Ag
65	F	FLU/MRSA	DFA/Sputum
53	M	hMPV/Klebs	DFA/Sputum
63	M	Rhino/C Diff	DFA/Stool
68	F	Proteus/RSV	Urine/DFA

Supplemental Table 3. qPCR primer sequences, Related to Methods

Gene	Forward Primer	Reverse Primer
<i>Gdf15</i>	5'- TTCTGGCTGTTACGTTAAGC -3'	5'- GCCATTTGCATCAATCAAGCA -3'
<i>Cxcl1</i>	5'-ATCCAGAGCTTGAAGGTGTTGC-3'	5'-AAGGCAAGCCTCGCGACC-3'
<i>Tnf</i>	5'-TCTGTCTACTGAACTTCGGGGTG-3'	5'-ACTTGGTGGTTTGCTACGACG-3'
<i>Mx1</i>	5'-TCCTCCCCAAATGTTTTTCAG-3'	5'-ACTGAGATGACCCAGCACCT-3'
<i>IL12b</i>	5'-GGTGTAAACCAGAAAGGTGCG-3'	5'-AAGGTGTCATGATGAACTTAG-3'
<i>16S</i>	5'-GTGCCAGCMGCCGCGGTAA-3'	5'-GGACTACHVGGGTWTCTAAT-3'
<i>Gfral</i>	Taqman Probe: Mm02344885_m1	
<i>Rpl13a</i>	Taqman Probe: Mm01612987_g1	