## Scatterplot of all genes



#### Rank-rank plot of all genes



Rank in contrast LPS

### number of genes in each quadrant







geneset size

number of genesets FDR<0.05





### Scatterplot of all gene sets; FDR<0.05 in red

s.LPS



### Scatterplot of all gene sets; top 50 in red

s.LPS



SHC MEDIATED CASCADE FGFR3 TRANSCRIPTIONAL REGULATION OF PLURIPOTENT STEM CELLS PINK1 PRKN MEDIATED MITOPHAGY FORMATION OF ATP BY CHEMIOSMOTIC COUPLING GLYCOGEN STORAGE DISEASES EUKARYOTIC TRANSLATION INITIATION ACTIVATION OF THE MRNA UPON BINDING OF THE CAP BINDING COMPLE PI 3K CASCADE FGFR4 FRS MEDIATED FGFR4 SIGNALING CITRIC ACID CYCLE TCA CYCLE SYNTHESIS OF VERY LONG CHAIN FATTY ACYL COAS TRIGLYCERIDE CATABOLISM RESPONSE OF EIF2AK4 GCN2 TO AMINO ACID DEFICIENCY SYNTHESIS OF BILE ACIDS AND BILE SALTS VIA 7ALPHA HYDROXYCHOLE COMPLEMENT CASCADE EUKARYOTIC TRANSLATION ELONGATION SCAVENGING BY CLASS A RECEPTORS SIGNALING BY FGFR3 FUSIONS IN CANCER DARPP 32 EVENTS ADP SIGNALLING THROUGH P2Y PURINOCEPTOR 12 RHOBTB3 ATPASE CYCLE CREB1 PHOSPHORYLATION THROUGH THE ACTIVATION OF ADENYLATE C SYNTHESIS OF PIPS AT THE LATE ENDOSOME MEMBRANE MET ACTIVATES RAP1 AND RAC1 CRMPS IN SEMA3A SIGNALING

### effect size versus statistical significance



s.dist (effect size)

### EUKARYOTIC TRANSLATION ELONGATION



Rank in contrast LPS

**EUKARYOTIC TRANSLATION ELONGATION** 



Rank in contrast LPS

Rank in contrast OVA

# EUKARYOTIC TRANSLATION ELONGATION



#### TRAFFICKING AND PROCESSING OF ENDOSOMAL TLI



Rank in contrast LPS

#### TRAFFICKING AND PROCESSING OF ENDOSOMAL TLR



Rank in contrast LPS

# TRAFFICKING AND PROCESSING OF ENDOSC



#### **MET ACTIVATES RAP1 AND RAC1**



Rank in contrast LPS

### **MET ACTIVATES RAP1 AND RAC1**



Rank in contrast LPS

## MET ACTIVATES RAP1 AND RAC1



#### **COMPLEX I BIOGENESIS**



Rank in contrast LPS

### **COMPLEX I BIOGENESIS**



Rank in contrast LPS

# **COMPLEX I BIOGENESIS**



#### **RESPONSE OF EIF2AK4 GCN2 TO AMINO ACID DEFICIEN**



Rank in contrast LPS

#### **RESPONSE OF EIF2AK4 GCN2 TO AMINO ACID DEFICIENCY**



Rank in contrast LPS

## **RESPONSE OF EIF2AK4 GCN2 TO AMINO ACII**



#### PHA LINOLENIC OMEGA3 AND LINOLEIC OMEGA6 ACID MET



Rank in contrast LPS

#### ALPHA LINOLENIC OMEGA3 AND LINOLEIC OMEGA6 ACID METABOLIS



Rank in contrast LPS

# ALPHA LINOLENIC OMEGA3 AND LINOLEIC OI



#### DEPENDENT COTRANSLATIONAL PROTEIN TARGETING TO I



Rank in contrast LPS

#### SRP DEPENDENT COTRANSLATIONAL PROTEIN TARGETING TO MEMBRA



Rank in contrast LPS

# SRP DEPENDENT COTRANSLATIONAL PROTE



#### ADP SIGNALLING THROUGH P2Y PURINOCEPTOR 12



Rank in contrast LPS

#### ADP SIGNALLING THROUGH P2Y PURINOCEPTOR 12



Rank in contrast LPS

# ADP SIGNALLING THROUGH P2Y PURINOCEF



### **INITIAL TRIGGERING OF COMPLEMENT**



Rank in contrast LPS

### **INITIAL TRIGGERING OF COMPLEMENT**



Rank in contrast LPS

Rank in contrast OVA

## INITIAL TRIGGERING OF COMPLEMENT


### **CD28 DEPENDENT VAV1 PATHWAY**



Rank in contrast LPS

## **CD28 DEPENDENT VAV1 PATHWAY**



# CD28 DEPENDENT VAV1 PATHWAY



### **EUKARYOTIC TRANSLATION INITIATION**



Rank in contrast LPS

**EUKARYOTIC TRANSLATION INITIATION** 



# EUKARYOTIC TRANSLATION INITIATION



## NUCLEOTIDE LIKE PURINERGIC RECEPTORS



Rank in contrast LPS

## NUCLEOTIDE LIKE PURINERGIC RECEPTORS



# NUCLEOTIDE LIKE PURINERGIC RECEPTORS



### PINK1 PRKN MEDIATED MITOPHAGY



Rank in contrast LPS

#### **PINK1 PRKN MEDIATED MITOPHAGY**



Rank in contrast LPS

## PINK1 PRKN MEDIATED MITOPHAGY



### **RESPIRATORY ELECTRON TRANSPORT**



Rank in contrast LPS

### **RESPIRATORY ELECTRON TRANSPORT**



Rank in contrast LPS

# **RESPIRATORY ELECTRON TRANSPORT**



### SIS OF BILE ACIDS AND BILE SALTS VIA 7ALPHA HYDROXY



Rank in contrast LPS

#### NTHESIS OF BILE ACIDS AND BILE SALTS VIA 7ALPHA HYDROXYCHOLES



# SYNTHESIS OF BILE ACIDS AND BILE SALTS \



### IPON BINDING OF THE CAP BINDING COMPLEX AND EIFS A



Rank in contrast LPS

### IRNA UPON BINDING OF THE CAP BINDING COMPLEX AND EIFS AND SUB



# ACTIVATION OF THE MRNA UPON BINDING OF



### HOSPHORYLATION THROUGH THE ACTIVATION OF ADENYI



Rank in contrast LPS

#### REB1 PHOSPHORYLATION THROUGH THE ACTIVATION OF ADENYLATE CY



# CREB1 PHOSPHORYLATION THROUGH THE A



### T ATP SYNTHESIS BY CHEMIOSMOTIC COUPLING AND HEA



Rank in contrast LPS

#### ISPORT ATP SYNTHESIS BY CHEMIOSMOTIC COUPLING AND HEAT PRODU



# **RESPIRATORY ELECTRON TRANSPORT ATP S**



### **COLLAGEN CHAIN TRIMERIZATION**



Rank in contrast LPS

### **COLLAGEN CHAIN TRIMERIZATION**



# COLLAGEN CHAIN TRIMERIZATION



### ASPARTATE AND ASPARAGINE METABOLISM



Rank in contrast LPS

#### ASPARTATE AND ASPARAGINE METABOLISM



# ASPARTATE AND ASPARAGINE METABOLISM



### SHC MEDIATED CASCADE FGFR3



Rank in contrast LPS

## SHC MEDIATED CASCADE FGFR3



Rank in contrast LPS

## SHC MEDIATED CASCADE FGFR3


### SYNTHESIS OF ACTIVE UBIQUITIN ROLES OF E1 AND E2 EN.



Rank in contrast LPS

#### SYNTHESIS OF ACTIVE UBIQUITIN ROLES OF E1 AND E2 ENZYMES



Rank in contrast LPS

# SYNTHESIS OF ACTIVE UBIQUITIN ROLES OF



### SYNTHESIS OF VERY LONG CHAIN FATTY ACYL COAS



Rank in contrast LPS

### SYNTHESIS OF VERY LONG CHAIN FATTY ACYL COAS



Rank in contrast LPS

# SYNTHESIS OF VERY LONG CHAIN FATTY AC



### SELENOAMINO ACID METABOLISM



Rank in contrast LPS

SELENOAMINO ACID METABOLISM



Rank in contrast LPS

## SELENOAMINO ACID METABOLISM



### SIGNALING BY FGFR3 FUSIONS IN CANCER



Rank in contrast LPS

#### SIGNALING BY FGFR3 FUSIONS IN CANCER



Rank in contrast LPS

# SIGNALING BY FGFR3 FUSIONS IN CANCER



### SCAVENGING BY CLASS A RECEPTORS



Rank in contrast LPS

### **SCAVENGING BY CLASS A RECEPTORS**



Rank in contrast LPS

## SCAVENGING BY CLASS A RECEPTORS



### SYNTHESIS OF PIPS AT THE LATE ENDOSOME MEMBRA



Rank in contrast LPS

#### SYNTHESIS OF PIPS AT THE LATE ENDOSOME MEMBRANE



Rank in contrast LPS

Rank in contrast OVA

# SYNTHESIS OF PIPS AT THE LATE ENDOSOM



### ATF6 ATF6 ALPHA ACTIVATES CHAPERONE GENES



Rank in contrast LPS

#### ATF6 ATF6 ALPHA ACTIVATES CHAPERONE GENES



Rank in contrast LPS

# ATF6 ATF6 ALPHA ACTIVATES CHAPERONE G



### **ACTIVATION OF RAC1**



Rank in contrast LPS

### **ACTIVATION OF RAC1**



Rank in contrast LPS

# ACTIVATION OF RAC1



### TRIGLYCERIDE CATABOLISM



Rank in contrast LPS

## **TRIGLYCERIDE CATABOLISM**



Rank in contrast LPS

## TRIGLYCERIDE CATABOLISM



### TRANSCRIPTIONAL REGULATION OF PLURIPOTENT STEM (



Rank in contrast LPS

### TRANSCRIPTIONAL REGULATION OF PLURIPOTENT STEM CELLS



Rank in contrast LPS

# TRANSCRIPTIONAL REGULATION OF PLURIPO



### **PI 3K CASCADE FGFR3**



Rank in contrast LPS

### **PI 3K CASCADE FGFR3**



Rank in contrast LPS

## PI 3K CASCADE FGFR3



### SHC MEDIATED CASCADE FGFR4



Rank in contrast LPS

### SHC MEDIATED CASCADE FGFR4



Rank in contrast LPS

## SHC MEDIATED CASCADE FGFR4


### FRS MEDIATED FGFR3 SIGNALING



Rank in contrast LPS

### FRS MEDIATED FGFR3 SIGNALING



## FRS MEDIATED FGFR3 SIGNALING



### **COMPLEMENT CASCADE**



Rank in contrast LPS

## **COMPLEMENT CASCADE**



Rank in contrast LPS

Rank in contrast OVA

## COMPLEMENT CASCADE



#### FRS MEDIATED FGFR4 SIGNALING



Rank in contrast LPS

### FRS MEDIATED FGFR4 SIGNALING



## FRS MEDIATED FGFR4 SIGNALING



## **CRMPS IN SEMA3A SIGNALING**



Rank in contrast LPS

#### **CRMPS IN SEMA3A SIGNALING**



Rank in contrast LPS

Rank in contrast OVA

## **CRMPS IN SEMA3A SIGNALING**



#### NONSENSE MEDIATED DECAY NMD



Rank in contrast LPS

NONSENSE MEDIATED DECAY NMD



Rank in contrast LPS

Rank in contrast OVA

## NONSENSE MEDIATED DECAY NMD



#### **PI 3K CASCADE FGFR4**



Rank in contrast LPS

## **PI 3K CASCADE FGFR4**



Rank in contrast LPS





### **BLOOD GROUP SYSTEMS BIOSYNTHESIS**



Rank in contrast LPS

## **BLOOD GROUP SYSTEMS BIOSYNTHESIS**



# **BLOOD GROUP SYSTEMS BIOSYNTHESIS**



#### G BETA GAMMA SIGNALLING THROUGH CDC42



Rank in contrast LPS

#### **G BETA GAMMA SIGNALLING THROUGH CDC42**



G BETA GAMMA SIGNALLING THROUGH CDC4



### FORMATION OF ATP BY CHEMIOSMOTIC COUPLING



Rank in contrast LPS

#### FORMATION OF ATP BY CHEMIOSMOTIC COUPLING



# FORMATION OF ATP BY CHEMIOSMOTIC COU



## PLATELET SENSITIZATION BY LDL



Rank in contrast LPS

## PLATELET SENSITIZATION BY LDL



## PLATELET SENSITIZATION BY LDL



#### **RHOBTB3 ATPASE CYCLE**



Rank in contrast LPS

## **RHOBTB3 ATPASE CYCLE**



Rank in contrast LPS

## RHOBTB3 ATPASE CYCLE



## CITRIC ACID CYCLE TCA CYCLE



Rank in contrast LPS

CITRIC ACID CYCLE TCA CYCLE



# CITRIC ACID CYCLE TCA CYCLE


### **GLYCOGEN STORAGE DISEASES**



Rank in contrast LPS

### **GLYCOGEN STORAGE DISEASES**



Rank in contrast LPS

## **GLYCOGEN STORAGE DISEASES**



SEROTONIN RECEPTORS



Rank in contrast LPS

### SEROTONIN RECEPTORS



Rank in contrast LPS

# SEROTONIN RECEPTORS



### CITRIC ACID TCA CYCLE AND RESPIRATORY ELECTRON TF

![](_page_150_Figure_1.jpeg)

Rank in contrast LPS

#### THE CITRIC ACID TCA CYCLE AND RESPIRATORY ELECTRON TRANSPO

![](_page_151_Figure_1.jpeg)

Rank in contrast LPS

# THE CITRIC ACID TCA CYCLE AND RESPIRATO

![](_page_152_Figure_1.jpeg)

#### **DARPP 32 EVENTS**

![](_page_153_Figure_1.jpeg)

Rank in contrast LPS

### **DARPP 32 EVENTS**

![](_page_154_Figure_1.jpeg)

Rank in contrast LPS

Rank in contrast OVA

## DARPP 32 EVENTS

![](_page_155_Figure_1.jpeg)

### ACTIVATION OF IRF3 IRF7 MEDIATED BY TBK1 IKK EPSIL

![](_page_156_Figure_1.jpeg)

Rank in contrast LPS

### **ACTIVATION OF IRF3 IRF7 MEDIATED BY TBK1 IKK EPSILON**

![](_page_157_Figure_1.jpeg)

Rank in contrast LPS

ACTIVATION OF IRF3 IRF7 MEDIATED BY TBK1

![](_page_158_Figure_1.jpeg)