

# Main functions from overrepresentation analysis plotted by tissue

Spleen	
FUNCTION	ADJ_P_VALUE
<b>lymphocyte activation</b>	$1 \times 10^{-65}$
<b>T cell activation</b>	$3 \times 10^{-56}$
<b>adaptive immune response</b>	$4 \times 10^{-53}$
<b>immune effector process</b>	$5 \times 10^{-50}$
<b>positive regulation of immune response</b>	$8 \times 10^{-50}$
regulation of cell activation	$3 \times 10^{-49}$
regulation of leukocyte activation	$4 \times 10^{-49}$
regulation of lymphocyte activation	$8 \times 10^{-48}$
leukocyte cell-cell adhesion	$2 \times 10^{-42}$
immune response-regulating signaling pathway	$1 \times 10^{-41}$

A

Heart	
FUNCTION	ADJ_P_VALUE
<b>muscle cell development</b>	$3 \times 10^{-27}$
<b>muscle structure development</b>	$1 \times 10^{-26}$
<b>myofibril assembly</b>	$2 \times 10^{-24}$
striated muscle cell development	$2 \times 10^{-24}$
muscle tissue development	$3 \times 10^{-24}$
<b>cardiac muscle tissue development</b>	$3 \times 10^{-24}$
muscle system process	$3 \times 10^{-24}$
striated muscle tissue development	$2 \times 10^{-23}$
muscle cell differentiation	$5 \times 10^{-23}$
<b>heart contraction</b>	$1 \times 10^{-22}$

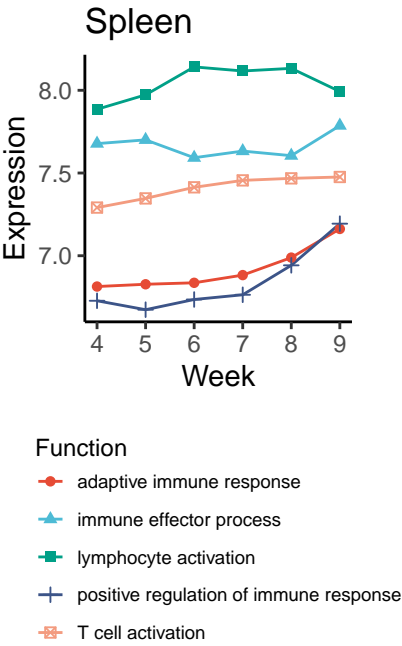
C

Muscle - Skeletal	
FUNCTION	ADJ_P_VALUE
<b>muscle structure development</b>	$7 \times 10^{-29}$
<b>muscle system process</b>	$8 \times 10^{-27}$
muscle organ development	$5 \times 10^{-25}$
<b>muscle cell development</b>	$1 \times 10^{-21}$
<b>muscle contraction</b>	$1 \times 10^{-21}$
muscle cell differentiation	$4 \times 10^{-20}$
<b>striated muscle cell differentiation</b>	$4 \times 10^{-19}$
myofibril assembly	$3 \times 10^{-18}$
striated muscle cell development	$3 \times 10^{-18}$
striated muscle contraction	$1 \times 10^{-16}$

E

Stomach	
FUNCTION	ADJ_P_VALUE
<b>digestion</b>	$1 \times 10^{-4}$
<b>regulation of hormone levels</b>	$6 \times 10^{-4}$
gastric acid secretion	$2 \times 10^{-3}$
<b>peptide hormone secretion</b>	$2 \times 10^{-3}$
peptide transport	$2 \times 10^{-3}$
peptide secretion	$3 \times 10^{-3}$
digestive system process	$6 \times 10^{-3}$
amide transport	$6 \times 10^{-3}$
hormone transport	$6 \times 10^{-3}$
hormone secretion	$6 \times 10^{-3}$

G



Brain	
FUNCTION	ADJ_P_VALUE
<b>synaptic signaling</b>	$9 \times 10^{-43}$
trans-synaptic signaling	$9 \times 10^{-43}$
chemical synaptic transmission	$9 \times 10^{-43}$
anterograde trans-synaptic signaling	$9 \times 10^{-43}$
<b>modulation of chemical synaptic transmission</b>	$9 \times 10^{-25}$
regulation of trans-synaptic signaling	$9 \times 10^{-25}$
<b>neuron projection morphogenesis</b>	$2 \times 10^{-18}$
cell projection morphogenesis	$8 \times 10^{-18}$
plasma membrane bounded cell projection morphogenesis	$2 \times 10^{-17}$
cell part morphogenesis	$2 \times 10^{-17}$

B

Liver	
FUNCTION	ADJ_P_VALUE
<b>monocarboxylic acid metabolic process</b>	$7 \times 10^{-51}$
small molecule catabolic process	$7 \times 10^{-39}$
<b>organic acid catabolic process</b>	$4 \times 10^{-36}$
carboxylic acid catabolic process	$2 \times 10^{-35}$
<b>steroid metabolic process</b>	$7 \times 10^{-33}$
small molecule biosynthetic process	$4 \times 10^{-31}$
<b>cellular amino acid metabolic process</b>	$1 \times 10^{-28}$
fatty acid metabolic process	$6 \times 10^{-28}$
<b>organic hydroxy compound metabolic process</b>	$9 \times 10^{-28}$
alpha-amino acid metabolic process	$3 \times 10^{-27}$

D

Testis	
FUNCTION	ADJ_P_VALUE
<b>male gamete generation</b>	$1 \times 10^{-35}$
spermatogenesis	$3 \times 10^{-34}$
microtubule-based movement	$2 \times 10^{-26}$
<b>cilium organization</b>	$2 \times 10^{-26}$
cilium assembly	$2 \times 10^{-23}$
microtubule cytoskeleton organization	$2 \times 10^{-23}$
<b>meiotic cell cycle</b>	$2 \times 10^{-23}$
cilium movement	$3 \times 10^{-20}$
nuclear division	$1 \times 10^{-18}$
meiotic cell cycle process	$2 \times 10^{-18}$

F

Skin	
FUNCTION	ADJ_P_VALUE
<b>epidermis development</b>	$2 \times 10^{-21}$
<b>skin development</b>	$9 \times 10^{-21}$
<b>keratinization</b>	$6 \times 10^{-17}$
<b>keratinocyte differentiation</b>	$2 \times 10^{-14}$
epidermal cell differentiation	$1 \times 10^{-10}$
intermediate filament cytoskeleton organization	$9 \times 10^{-10}$
intermediate filament-based process	$1 \times 10^{-9}$
intermediate filament organization	$6 \times 10^{-9}$
regulation of water loss via skin	$2 \times 10^{-8}$
establishment of skin barrier	$1 \times 10^{-7}$

H

